PART D SUPPLEMENTAL INFORMATION

Complete a separate form for each subpart and indicate the subpart number (example Part C, question 2) in the space indicated. Also consecutively number each additional page at the top of this page.

SUBPART NUMBER	PAGE NUMBER

MO 780-1222 (7-90)

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM

ASBESTOS OCCUPATION CERTIFICATION RENEWAL

GENERAL INSTRUCTIONS

Asbestos occupation certification expires one year from its effective date unless it is renewed annually. To qualify for a renewal certificate, Missouri Air Conservation Law, Chapter 643 and Missouri state rule, 10 CSR 10-6.080 requires the individual shall successfully complete a Missouri state approved annual refresher course and examination. The individual shall make a score of seventy (70) percent or greater on the refresher course examination. The refresher course shall be specific to the certification for which the individual initially received their training. In addition, the refresher course shall meet the requirements of the U.S. EPA AHERA Model Accreditation Plan, 40 CFR Part 763. The individual shall complete the Certification Renewal Form(s) (one form per occupation), submit refresher training course certificate(s), and submit a renewal fee of five (5) dollars per renewal category to the following address:

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM (ASBESTOS)
P.O. Box 176
Jefferson City, Missouri 65102

PART A AUTHENTICATION

1. NAME OF APPLICATION (PRINT)

2. HOME ADDRESS (STREET/APARTMENT)

CITY	STATE	ZIP

3. TELEPHONE NUMBER	4. SOCIAL SECURITY NUMBER
( )	

5. PRESENT EMPLOYER

6. EMPLOYER'S ADDRESS

7. EMPLOYER'S TELEPHONE NUMBER	PRESENT MISSOURI CERTIFICATE NUMBER

9. OCCUPATION CATEGORY (CHECK ONLY ONE PER RENEWAL APPLICATION)

FEE: $5.00

- ☐ WORKER
- ☐ SUPERVISOR
- ☐ PROJECT DESIGNER
- ☐ INSPECTOR
- ☐ MANAGEMENT PLANNER
- ☐ AIR SAMPLING PROFESSIONAL

10. I HEREBY CERTIFY THAT ALL OF THE INFORMATION PROVIDED IN THIS APPLICATION IS COMPLETE AND TRUE TO THE BEST OF MY KNOWLEDGE. I FURTHER CERTIFY THAT I WILL COMPLY WITH REQUIREMENTS OF MISSOURI AIR CONSERVATION LAW, CHAPTER 643 AND MISSOURI STATE RULE 10 CSR 10-6.080.

SIGNATURE OF APPLICANT	DATE

PART B TRAINING

Provide the training information which relates to the type of certification for which you are making application on this form. Attach copies of your initial training certificate and all subsequent refresher training certificates.

1. TYPE OF TRAINING (CHECK ONE)

- ☐ WORKER
- ☐ SUPERVISOR
- ☐ PROJECT DESIGNER
- ☐ INSPECTOR
- ☐ MANAGEMENT PLANNER
- ☐ AIR SAMPLING PROFESSIONAL

NAME OF TRAINING PROVIDER	TELEPHONE

ADDRESS (STREET)

CITY	STATE	ZIP

CERTIFICATE NUMBER	EXPIRATION DATE

ACCREDITATION OF TRAINING PROVIDER (CHECK ONE)

- ☐ 1. EPA
- ☐ 2. MISSOURI
- ☐ 3. EPA APPROVED STATE PROGRAM - SPECIFY _____

NOTE ▸ If the information you have submitted on this application changes, please notify the department in writing of the change within thirty (30) days.

MO 780-1227 (7-90)

PART C SUPPLEMENTAL INFORMATION

PART NUMBER	SUBPART NUMBER	PAGE NUMBER

MO 780-1227 (7-90)

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM (ASBESTOS)

ASBESTOS OCCUPATION CERTIFICATION APPLICATION

GENERAL INSTRUCTIONS

Individuals desiring certification status to engage in asbestos work in Missouri must provide all of the information requested in this application form, submit the required documentation, and submit the required fee ($25 worker, $75 for inspector, management planner, project designer, air sampling professional, supervisor) for departmental review. Any failure to complete the form, submit the required documentation, and submit the required fee will delay the review process. Please submit a separate application form and fee for each occupation in which you desire to be certified. NOTE: A fee of twenty-five dollars ($25) must also be included per applicant for taking the Missouri state asbestos examination.

Certification expires one year from its effective date unless it is renewed annually. The department will send you a letter regarding the status of your certification after it has reviewed your application, documentation and compliance history.

Certification will be based upon the following: 1) completion of this application; 2) submission of a copy of the individual's training course certificate(s) stating successful completion of the required training for the specialty area that the certification has been applied for (in accordance with Missouri Air Conservation Law, Chapter 643 and Missouri state asbestos regulations 10 CSR 10-6.080); 3) scoring at least seventy percent (70%) on the final course examination; 4) scoring at least seventy percent (70%) on the Missouri state asbestos examination); 5) payment of the certification fee and Missouri state asbestos examination fee, and 6) compliance history.

The completed application form(s), training certificate(s), appropriate certification(s) fee(s) and state asbestos examination fee shall be mailed to the following address:

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM (ASBESTOS)
P.O. Box 176
Jefferson City, Missouri 65102

PART A AUTHENTICATION

1. NAME OF APPLICANT (PRINT OR TYPE)

2. HOME ADDRESS (STREET/APARTMENT)

CITY	STATE	ZIP

3. TELEPHONE NUMBER (OFFICE)	4. SOCIAL SECURITY NUMBER
( )	

5. PRESENT EMPLOYER

6. EMPLOYER'S ADDRESS

7. EMPLOYER'S TELEPHONE NUMBER

8. ARE YOU CERTIFIED IN ANY OTHER STATE?
☐ YES ☐ NO If so, which one(s)

9. PLEASE CHECK TYPE OF CERTIFICATE DESIRED (ONLY ONE CERTIFICATE PER APPLICATION)

		Fee
☐	Worker	$25.00
☐	Supervisor	$75.00
☐	Project Designer	$75.00
☐	Inspector	$75.00
☐	Management Planner	$75.00
☐	Air Sampling Professional	$75.00

FOR OFFICE USE ONLY

☐ INTERIM CERTIFICATION
DATE

☐ FULL CERTIFICATION
DATE

10. I HEREBY CERTIFY THAT ALL OF THE INFORMATION PROVIDED IN THIS APPLICATION IS COMPLETE AND TRUE TO THE BEST OF MY KNOWLEDGE. I FURTHER CERTIFY THAT I WILL COMPLY WITH CHAPTER 643 AND 10 CSR 10-6.080.

SIGNATURE OF APPLICANT	DATE

NOTE ▶ A Missouri state asbestos examination fee of $25.00 is required for all individuals applying for certification.

MO 780-1228 (7-90)

PART B TRAINING

Provide the training information which relates to the type of certification for which you are making application on this form. Supplemental sheets may be attached. Please note that for supervisor, project designer and air sampling professional specific qualifications are required in both Chapter 643 and Missouri asbestos regulations 10 CSR 10-6.080.

Attach copies of your initial training certificate and all refresher training certificates. In order to qualify for recertification, your refresher training course must be fully-approved by U.S. EPA or Missouri state approved, and meet the requirements set forth in Chapter 643 and 10 CSR 10-6.080.

1. INITIAL TRAINING INFORMATION

TYPE OF TRAINING (CHECK ONE)

☐ WORKER ☐ PROJECT DESIGNER ☐ MANAGEMENT PLANNER
☐ SUPERVISOR ☐ INSPECTOR ☐ AIR SAMPLING PROFESSIONAL

NAME OF TRAINING PROVIDER

ADDRESS

CERTIFICATE NUMBER | EXPIRATION DATE

ACCREDITATION OF TRAINING PROVIDER (CHECK ONE)

☐ 1. EPA
☐ 2. MISSOURI ☐ 3. EPA APPROVED STATE PROGRAM - SPECIFY _____

2. REVIEW TRAINING INFORMATION

If your initial training certificate has expired, you must provide the following information relating to your most recent refresher training course.

TYPE OF REFRESHER TRAINING (CHECK ONE)

☐ WORKER ☐ PROJECT DESIGNER ☐ MANAGEMENT PLANNER
☐ SUPERVISOR ☐ INSPECTOR ☐ AIR SAMPLING PROFESSIONAL

NAME OF TRAINING PROVIDER

ADDRESS

CERTIFICATE NUMBER | EXPIRATION DATE | EXAMINATION SCORE

ACCREDITATION OF TRAINING PROVIDER (CHECK ONE)

☐ 1. EPA
☐ 2. MISSOURI ☐ 3. EPA APPROVED STATE PROGRAM - SPECIFY _____

NOTE ▶ Submit copies of your training certificates with this application to the department.

PART C QUALIFICATIONS

This section is designated for individuals making application for certification as supervisor, project designer or air sampling professional. If you are making application for more than one specialty area in this section, please use a separate page for each selection. Please use the supplemental sheet attached.

1. SPECIALITY AREA YOU ARE SPECIFYING QUALIFICATIONS FOR

☐ SUPERVISOR ☐ PROJECT DESIGNER ☐ AIR SAMPLING PROFESSIONAL

2. IF YOU ARE MAKING APPLICATION AS A SUPERVISOR, PLEASE PROVIDE PROOF OF THE FOLLOWING: ONE YEAR OF PRIOR EXPERIENCE IN ASBETOS ABATEMENT WORK OR GENERAL CONSTRUCTION WORK. THIS EXPERIENCE REQUIREMENT IS BASED ON SITE EXPERIENCE AND NOT THE TOTAL TIME EMPLOYED. THIS EXPERIENCE SHALL BE EXPRESSED IN HOURS AND NOT IN YEARS OR MONTHS. PLEASE ATTACH ALL DOCUMENTATION THAT PROVIDES EVIDENCE OF THIS EXPERIENCE WITH THIS APPLICATION.

3. IF YOU ARE MAKING APPLICATIONS AS A PROJECT DESIGNER, PLEASE PROVIDE PROOF THAT YOU ARE AN ARCHITECT, ENGINEER, INDUSTRIAL HYGIENIST OR IN THE INDUSTRIAL SAFETY FIELD. SUBMIT A COPY OF YOUR CERTIFICATION, OR DIPLOMA IN THIS FIELD.

4. IF YOU ARE MAKING APPLICATION AS AN AIR SAMPLING PROFESSINAL, PROVIDE PROOF OF ONE OF THE FOLLOWING:

☐ B.S. in industrial hygiene plus one year experience in the field.
☐ M.S. in industrial hygiene
☐ C.I.H. by American Board of Industrial Hygiene
☐ Three years practical experience in the field of industrial hygiene including significant asbestos air monitoring and completion of a forty (40) hour asbetos course including air monitoring instruction.

Individuals making application for air sampling professional who do not have an industrial hygiene degree, must provide proof that the forty hour asbestos course meets the requirements specified in Chapter 643 and they must provide evidence of this course in the form the department requires. These requirements include, but are not limited to:

Name, address and phone number of course provider; outline of the course; certificate from the course; date and location of the course.

MO 780-1228 (7-90)

PART D SUPPLEMENTAL INFORMATION

Complete a separate form for each specialty area.

SPECIALTY AREA	SUBPART NUMBER	PAGE NUMBER

MO 780-1228 (7-90)

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM (ASBESTOS)

TRAINING COURSE ACCREDITATION

GENERAL INSTRUCTIONS

Persons intending to provide training to meet the Missouri statutory and regulatory requirements for asbestos certification in Missouri Air Conservation Law, Chapter 643 and Missouri state rule, 10 CSR 10-6.080 must complete this training course accreditation form. Separate applications are required for each specialty area, and a fee of one thousand dollars ($1000) per training course is required. If a training provider desires to have more than three training courses reviewed for accreditation, the maximum fee to the state for review will be three thousand dollars ($3000). Please print legibly or type the application form.

Where separate pages are required to provide information requested by this application, the part and item number should be indicated on the supplemental page attached.

Training course accreditation must be renewed biennially as required in Missouri statute and rule. Training courses must meet the criteria as defined in U.S. EPA's AHERA Model Accreditation Plan, 40 CFR Part 763, Appendix C, Subpart E, Chapter 643 and 10 CSR 10-6.080.

Completed application form(s) (one form per course category) and the accreditation fee(s) are to be mailed to the following address:

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM (ASBESTOS)
P.O. Box 176
Jefferson City, Missouri 65102

PART A GENERAL INFORMATION

1. NAME OF FIRM	TELEPHONE NUMBER	
2. MAILING ADDRESS (STREET)		
CITY	STATE	ZIP
3. CONTACT PERSON NAME	TITLE	

4. ARE YOU AN ACCREDITED TRAINING PROVIDER IN ANY OTHER STATE(S)?
☐ YES ☐ NO IF YES, PLEASE SPECIFY ▶

5. HAS YOUR TRAINING PROGRAM RECEIVED ANY FEDERAL OR STATE VIOLATIONS IN THE PAST THREE YEARS?
☐ YES ☐ NO

IF YES, COMPLETE ▶ ☐ FEDERAL ☐ STATE

LOCATION OF VIOLATION	NATURE OF VIOLATION
OUTCOME	

NOTE ▶ The following statement must be signed by the administrator or operating officer of the entity seeking approval of the training course.

I hereby certify that the information included in this application and any supplemental information attached to it is true and accurate to the best of my knowledge and understanding.

SIGNATURE	DATE
PRINT OR TYPE NAME	TITLE

PART B COURSE ADMINISTRATION

1. INDICATE THE ASBESTOS OCCUPATION FOR WHICH THE COURSE IS DEVELOPED AND WHETHER INITIAL OR REVIEW TRAINING.

	INITIAL	REVIEW		INITIAL	REVIEW
Worker	☐	☐	Inspector	☐	☐
Supervisor	☐	☐	Management Planner	☐	☐
Project Designed	☐	☐			

2. TITLE OF THE COURSE

3. LOCATION(S) AT WHICH THIS COURSE IS INTENDED TO BE PRESENTED

4. FREQUENCY AT WHICH THE COURSE IS INTENDED TO BE PRESENTED

5. MAXIMUM NUMBER OF STUDENTS THAT ARE INTENDED TO BE ALLOWED TO ATTEND EACH SCHEDULED COURSE

6. FEE THAT IS INTENDED TO BE CHARGED PERSONS THAT ATTEND THE COURSE

MO 780-1229 (7-90)

PART C CURRICULUM

The following course curriculum materials must be submitted for review in accordance with Chapter 643, 10 CSR 10-6.080 and U.S. EPA's AHERA Model Acceditation Plan. Use supplemental pages as necessary.

1 TITLE OF THE COURSE

2 ASBESTOS OCCUPATION FOR WHICH THE COURSE IS DESIGNED

3 LIST OF PERSONS PRESENTING THE COURSE, INCLUDING THEIR EXPERIENCE, EDUCATION, AND OTHER QUALIFICATIONS, AND HOW THESE QUALIFICATIONS MEET THE REQUIREMENTS IN CHAPTER 643, 10 CSR 10-6.080 AND U.S. EPA'S AHERA MODEL ACCREDITATION PLAN. USE THE SUPPLEMENTAL PAGES.

4. MAXIMUM NUMBER OF STUDENTS TO BE ENROLLED IN EACH CLASSROOM PRESENTATION

5. MAXIMUM NUMBER OF STUDENTS TO BE ENROLLED IN EACH HANDS-ON CLASS

6. THE DATES OR TIME PERIODS OVER WHICH AN INDIVIDUAL TRAINING OR REVIEW COURSE IS INTENDED TO BE PRESENTED

7 THE NAMES AND AUTHORS OF ANY TEST OR AUDIO-VISUAL MATERIAL TO BE USED, INCLUDING THE PUBLISHER AND EDITION, OR IF NO TEXT IS TO BE USED, A LIST OF ANY WRITTEN MATERIALS TO BE USED, INCLUDING THE SOURCE OF SUCH MATERIALS. SUBMIT A COPY OF THE WRITTEN PORTION OF YOUR TRAINING COURSE WITH THIS APPLICATION.

8. SPECIFIC OBJECTIVES FOR THE COURSE

9. THE UNITS TO BE COVERED IN THE COURSE FOR EACH RESPECTIVE SPECIALTY COURSE, INCLUDING A GENERAL DESCRIPTION OF THE NATURE OF THE INFORMATION TO BE PRESENTED. USE THE SUPPLEMENTAL PAGE.

10. THE METHOD OF INSTRUCTION AND TRAINING AIDS FOR EACH UNIT LISTED IN THE U.S. EPA'S AHERA MODEL ACCREDITATION PLAN. E.G., LECTURE, DEMONSTRATION, SIMULATION, SLIDE PRESENTATION, FILM STRIP, ETC. USE THE SUPPLEMENTAL PAGE.

11. THE LENGTH OF TIME TO BE SPENT ON EACH UNIT LISTED IN U.S. EPA'S AHERA MODEL ACCREDITATION PLAN. USE THE SUPPLEMENTAL PAGE.

12. A DESCRIPTION OF THE PRACTICAL HANDS-ON TRAINING TO BE PROVIDED FOR EACH UNIT SUCH AS WORKING WITH ASBESTOS-SUBSTITUTE MATERIALS, FIT TESTING AND USING RESPIRATORS, USE OF GLOVEBAGS, DONNING PROTECTIVE CLOTHING, CONSTRUCTING A DECONTAMINATION UNIT, AND OTHER HANDS-ON ACTIVITIES. USE THE SUPPLEMENTAL PAGE.

13. LIST OF READING ASSIGNMENTS FOR THE COURSE

14. A DESCRIPTION AND AN EXAMPLE OF NUMBERED CERTIFICATES ISSUED TO STUDENTS WHO ATTEND AND PASS THE COURSE.

15. EXPLANATION OF HOW STUDENTS WILL BE EVALUATED BY A COMPREHENSIVE EXAMINATION AT THE END OF THE COURSE

16. EXPLANATION OF THE GRADING SYSTEM TO BE USED FOR WRITTEN EXAMINATIONS AND PROFICIENCY EVALUATIONS

17. LIST OF TASKS AND DUTIES CONNECTED WITH EACH UNIT IN WHICH STUDENTS WILL BE EVALUATED FOR COMPETENCY, ALONG WITH GUIDELINES FOR EXAMINATIONS TO BE USED WHICH SHALL INCLUDE, AT A MINIMUM
   a. PROCEDURES TO BE FOLLOWED IN ADMINISTERING EXAMINATIONS;
   b. PROCEDURES TO BE FOLLOWED TO ENSURE SECURITY OF EXAMINATIONS, BOTH DURING ADMINISTRATION AND OTHERWISE, INCLUDING BUT NOT LIMITED TO THE NUMBER OF TIMES A PARTICULAR EXAMINATION WILL BE USED;
   c. PROCEDURES TO BE FOLLOWED TO VALIDATE EXAMINATIONS AS TESTING COMPETENCY IN THE UNIT BEING TESTED; AND
   d. PROCEDURES TO BE FOLLOWED IN REPORTING THE GRADES TO THE INDIVIDUAL AND THE DEPARTMENT.
   PLEASE INCLUDE AS A SEPARATE ATTACHMENT ANY OTHER INFORMATION RELEVANT TO THIS APPLICATION.

NOTE

The department may deny accreditation of a course if the applicant fails to provide information required within 60 days of receipt of departmental written notice that the application is deficient.

A training course provider shall have thirty (30) days to correct the identified deficiencies in their training course(s) before the department issues final written notice that their accreditation is withdrawn.

MO 780-1229 (7-90)

PART D SUPPLEMENTAL INFORMATION

PART NUMBER	SUBPART NUMBER	PAGE NUMBER

MO 780-1229 (7-90)

10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

PURPOSE: This rule establishes the maximum allowable concentration of sulfur compounds in source emissions and in the ambient air.

(1) Applicability.

(A) This rule applies to any installation that is an emission source of sulfur compounds, except—

1. Emission sources subject to an applicable sulfur compound emission limit under 10 CSR 10-6.070; or

2. Combustion equipment that uses exclusively pipeline grade natural gas as defined in 40 CFR 72.2. or liquefied petroleum gas as defined by American Society for Testing and Materials (ASTM), or any combination of these fuels.

(B) Subsection (3)(A) of this rule shall apply to all sulfur compound emissions except—

1. Indirect heating sources; or

2. Existing lead smelting and/or refining sources.

(C) Subsection (3)(B) of this rule restricts sulfur dioxide (SO_2) concentrations in the ambient air.

(D) Subsecection (3)(C) of this rule restricts sulfur dioxide emissions from indirect heating sources greater than three hundred fifty thousand British thermal units (350,000 Btus) per hour actual heat input.

(E) Subsection (3)(D) of this rule shall apply to sulfur compound emissions from existing lead smelting and/or refining sources or related activities.

(2) Definitions. Definitions of certain terms specified in this rule may be found in 10 CSR 10-6.020.

(3) General Provisions.

(A) Restriction of Concentration of Sulfur Compounds in Emissions.

1. Existing sources. No person shall cause or permit the emission into the atmosphere gases containing more than two thousand parts per million by volume (2000 ppmv) of sulfur dioxide or more than seventy milligrams per cubic meter (70 mg/cubic meter) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three (3)-hour time period.

2. New sources. No person shall cause or permit the emission into the atmosphere gases containing more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide or more than thirty-five milligrams per cubic meter (35 mg/cubic meter) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three (3)-hour time period.

3. Compliance with subsection (3)(A) of this rule shall be determined by source testing as specified in subsection (5)(A) of this rule.

4. Other methods approved by the staff director in advance may be used.

(B) Restriction of Concentration of Sulfur Compounds in the Ambient Air. In addition to the limitations specified in subsections (3)(A), (3)(C) and (3)(D) of this rule, no person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards. Except as may be specified elsewhere in this rule, the methods for measuring ambient sulfur compound concentrations are specified in 10 CSR 10-6.040.

(C) Restriction of Emission of Sulfur Dioxide from Indirect Heating Sources.

1. Subsection (3)(C) of this rule applies to installations in which fuel is burned for the primary purpose of producing steam, hot water or hot air or other indirect heating of liquids, gases or solids and in the course of doing so the products of combustion do not come into direct contact with process materials. When any products or by-products of a manufacturing process are burned for the same purpose or in conjunction with any fuel, the same maximum emission limitations shall apply.

2. Indirect heating sources located in Missouri, other than in Franklin, Jefferson, St. Louis, St. Charles Counties or City of St. Louis.

A. No person shall cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of eight pounds (8 lbs.) of sulfur dioxide per million Btus actual heat input averaged on any consecutive three (3)-hour time period unless that source is listed in Table I or subject to a provision of 10 CSR 10-6.070 New Source Performance Regulations with an applicable sulfur compound emission limit.

B. The following existing indirect heating sources listed in Table I shall limit their average sulfur emissions into the atmosphere to the allowable amount of sulfur dioxide per million Btus of actual heat input averaged on any consecutive three (3)-hour basis.

Table I

Facility	Averaging Time	Emission Rate per Unit (Pounds Sulfur Dioxide Per Million Btus)
Associated Electric Cooperative—New Madrid	3 hours	10.0
Associated Electric Cooperative—Thomas Hill	3 hours	8.0
Central Electric Power Cooperative—Chamois	3 hours	6.7
City Utilities—James River Plant*	24 hours	(Units 1–4) 1.5 (Unit 5) 2.0
Empire District Electric Company—Asbury Station	3 hours	12.0
Independence Power and Light—Blue Valley Station	3 hours	6.3
Trigen—Grand Ave. Plant	3 hours	7.1
Kansas City Power & Light—Hawthorn Plant*	Annual	1.3
Kansas City Power & Light—Montrose Station*	Annual	1.3
Acquila—Sibley Plant	3 hour	9.0
Acquila—Lake Road Plant*	24 hours	(Boilers 1, 2, and 4) 0.0524 (Boiler 3) 0.0006 (Boiler 5) 1.3490 (Boiler 6)** (Combustion Turbines 5, 6, and 7) 0.0511
University of Missouri—Columbia	3 hours	8.0

* Facility is subject to State Enforceable Agreement.

** Boiler 6 at the Lake Road Plant is limited to a 24-hour daily block average of 1,400 pounds of SO_2/hour.

C. Compliance with paragraph (3)(C)2. of this rule shall be determined by source testing as specified in subsection (5)(B) of this rule.

D. Other methods approved by the staff director in advance may be used.

E. Owners or operators of sources and installations subject to paragraph (3)(C)2. of this rule shall furnish the director such data as s/he may reasonably require to determine whether compliance is being met.

3. Indirect heating sources located in Franklin, Jefferson, St. Louis, St. Charles Counties or City of St. Louis.

A. Restrictions applicable to installations with a capacity of two thousand (2,000) million or more Btus per hour.

(I) No person shall cause or permit the emission of sulfur dioxide to the atmosphere from any installation with a capacity of two thousand (2,000) million or more Btus per hour in an amount greater than two and three-tenths pounds (2.3 lbs.) of sulfur dioxide per million Btus of actual heat input averaged on any consecutive three (3)-hour time period unless that source is listed in part (3)(C)3.A.(II) of this rule or is subject to a provision of 10 CSR 10-6.070 New Source Performance Regulations with an applicable sulfur compound emission limit.

(II) The following existing installations shall limit their sulfur dioxide emissions into the atmosphere from the combustion of any fuels to the allowable amount of sulfur dioxide per million Btus of actual heat input listed:

Facility	Emission Rate per Unit* (Pounds Sulfur Dioxide Per Million Btus)
AmerenUE—Labadie Plant	4.8
Ameren UE—Portage des Sioux Plant	4.8

*Daily average, 00:01 to 24:00

(III) Owners or operators of sources and installations subject to paragraph (3)(C)3. of this rule shall furnish the director such data as s/he may reasonably require to determine whether compliance is being met.

(IV) Each source subject to limitations under subparagraph (3)(C)3.A. of this rule may emit sulfur dioxide at a rate not to exceed the allowable emission rate by more than twenty percent (20%) for not more than three (3) days in any one (1) month.

(V) Compliance with part (3)(C)3.A.(II) of this rule shall be demonstrated by sulfur dioxide and either carbon dioxide or oxygen continuous monitoring devices, which devices, within ninety (90) days of the date part (3)(C)3.A.(II) of this rule becomes effective (July 12, 1979) as to any source or before January 1, 1982, in the case of Ameren UE Company's Labadie Plant, shall be certified by the owner or operator to be installed and operational in accordance with Performance Specifications 2 and 3, 40 CFR part 60, Appendix B. The devices shall also be operated and maintained in accordance with the procedures and standards set out at 40 CFR 60.13(d) and (e)(2).

(VI) Reports shall be as specified in section (4) of this rule.

B. Restrictions applicable to installations with a capacity of less than two thousand (2,000) million Btus per hour.

(I) During the months of October, November, December, January, February and March of every year, no person shall burn or permit the burning of any coal containing more than two percent (2%) sulfur or of any fuel oil containing more than two percent (2%) sulfur in any installation having a capacity of less than two thousand (2,000) million Btus per hour. Otherwise, no person shall burn or permit the burning of any coal or fuel oil containing more than four percent (4%) sulfur in any installation having a capacity of less than two thousand (2,000) million Btus per hour.

(II) Part (3)(C)3.B.(I) of this rule shall not apply to any installation if it can be shown that emissions of sulfur dioxide from the installation into the atmosphere will not exceed two and three-tenths (2.3) pounds per million Btus of heat input to the installation.

(III) Owners or operators of sources and installations subject to this section shall furnish the director such data as s/he may reasonably require to determine whether compliance is being met.

C. Compliance with paragraph (3)(C)3. of this rule shall be determined by source testing as specified in subsection (5)(B) of this rule.

D. Other methods approved by the staff director in advance may be used.

(D) Emission of Sulfur Dioxide from Existing Lead Smelters and Refineries.

1. Each of the following existing installations listed in Table II engaged in smelting and/or refining lead shall limit its sulfur dioxide emissions from the sources or stacks, as described, to the amount of sulfur dioxide set forth here.

Table II

Facility	Averaging Time	Emission Limitation (Pounds SO_2/Hr)
Doe Run Company, Lead Smelter and Refinery—Glover, Missouri	1 hour test repeated 3 times	
Two stacks:		
Sinter machine off-gas stack		20,000
Blast furnace baghouse stack		1,056
Doe Run Company, Buick Smelter—Boss, Missouri	1 hour test repeated 3 times	8,650
Doe Run Company, Herculaneum Smelter—Herculaneum, Missouri	1 hour test repeated 3 times	20,000

2. Compliance with paragraph (3)(D)1. of this rule shall be determined by source testing as specified in subsection (5)(B) of this rule except that the source testing shall consist of averaging three (3) separate one (1)-hour tests using the applicable testing method.

3. Secondary lead smelting installations shall install, calibrate, maintain and operate an SO_2 continuous emission monitoring system, for the purpose of demonstrating compliance status, relative to subsection (3)(A) of this rule.

A. Certification.

(I) The continuous emission monitoring systems shall be certified by the owner or operator in accordance with 40 CFR part 60 Appendix B, Performance Specification 2 and Section 60.13 as is pertinent to SO_2 continuous monitors as adopted by reference in 10 CSR 10-6.070.

(II) The span of the SO_2 continuous monitor shall be set at an SO_2 concentration of one-fifth percent (0.20%) by volume.

(III) For the purpose of the SO_2 continuous monitor performance evaluation, the reference method referred to under the Field Test for Accuracy in Performance Specification 2 shall be Reference Method 6, 10 CSR 10-6.030(6). For this method, the minimum sampling time is twenty (20) minutes and the minimum volume is 0.02 dry standard cubic meter (dscm) for each sample. Samples are taken at sixty (60)-minute intervals and each sample represents a one (1)-hour average.

B. Reports shall be as specified in section (4) of this rule.

4. Owners or operators of sources and installations subject to this section shall furnish the director such data as s/he may reasonably require to determine whether compliance is being met.

(4) Reporting and Record Keeping.

(A) The owner or operator of each source subject to subparagraph (3)(C)3.A. and paragraph (3)(D)3. of this rule shall submit a written report of excess emissions for each calendar quarter to the director within thirty (30) days following the end of the quarter. Each report shall:

1. Contain the magnitude of sulfur dioxide emissions as follows:

A. For sources subject to subparagraph (3)(C)3.A. of this rule, the magnitude shall be reported in pounds per million Btus of all daily (00:01 to 24:00) averages of sulfur dioxide emissions greater than the emission rate allowed by part (3)(C)3.A.(II) of this rule; and

B. For sources subject to paragraph (3)(D)3. of this rule, the magnitude shall be reported in parts per million of each two (2)-hour arithmetic average of sulfur dioxide emissions greater than the emission rate allowed by subsection (3)(A) of this rule;

2. Identify each period during which the continuous monitoring system was inoperative, except for zero and span checks and the nature of repairs and adjustments performed to make the system operative; and

3. Contain a statement that no excess emissions occurred during the quarter, except as reported or during periods when the continuous monitoring system was inoperative. Data reduction and conversion procedures shall conform to the provisions of 40 CFR 60.13(h) and 60.45(e) and (f);

(B) Each owner or operator required to file quarterly reports under this section and, for a minimum of two (2) years from the date of the quarterly report, shall maintain a file of the following:

1. All information reported in the quarterly reports;

2. All other data collected by the continuous monitoring system or necessary to convert the monitoring data to the units of the applicable emission limitation;

3. All continuous monitoring system performance evaluations;

4. All continuous monitoring system or monitoring device calibration checks;

5. Monitoring system, monitoring device and performance testing measurements; and

6. Adjustments and maintenance performed on these systems or devices; and

(C) Files shall be kept available for inspection by the director during regular business hours.

(5) Test Methods.

(A) Source testing to determine compliance with sulfur dioxide emission limits shall be done as specified in 10 CSR 10-6.030(6) or by an alternate method described in 40 CFR 60 Appendix A. Source testing to determine compliance with sulfur trioxide and/or sulfuric acid mist emission limits concurrently with sulfur dioxide compliance shall be done as specified in 10 CSR 10-6.030(8).

(B) The heating value of the fuel shall be determined as specified in 10 CSR 10-6.040(2). Source testing to determine compliance shall be done as specified in 10 CSR 10-6.030(6). The actual heat input shall be determined by multiplying the heating value of the fuel by the amount of fuel burned during the source test period.

AUTHORITY: section 643.050, RSMo 2000. Original rule filed Jan. 19, 1996, effective Aug. 30, 1996. Amended: Filed Sept. 29, 2003, effective May 30, 2004.*

**Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995.*

10 CSR 10-6.270 Acid Rain Source Permits Required

PURPOSE: This rule establishes certain general provisions and operating permit program requirements for affected sources and affected units under the federal Acid Rain Program.

PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. Therefore, the material which is so incorporated is on file with the agency who filed this rule, and with the Office of the Secretary of State. Any interested person may view this material at either agency's headquarters or the same will be made available at the Office of the Secretary of State at a cost not to exceed actual cost of copy reproduction. The entire text of the rule is printed here. This note refers only to the incorporated by reference material.

(1) Definitions—Terms and phrases used in this rule may be found in 10 CSR 10-6.020 Definitions and Common Reference Tables.

(2) The Missouri Department of Natural Resources hereby adopts and incorporates by reference the provisions of 40 CFR part 72, then 40 CFR part 73, 40 CFR part 75, 40 CFR part 76, 40 CFR part 77, and 40 CFR part 78 as in effect in the *Code of Federal Regulations* on or after July 1993, for the purpose of establishing certain general provisions and operating permit program requirements for affected sources and affected units under the federal Acid Rain Program.

(3) If the provisions or requirements of 40 CFR part 72 and 40 CFR part 75 conflict with or are not included in Missouri state rule 10 CSR 10-6.065 Operating Permits Required, the parts 72 and 75, provisions and requirements shall take precedence.

AUTHORITY: section 643.050, RSMo Supp. 1997. Original rule filed June 2, 1994, effective Dec. 30, 1994. Amended: Filed Oct. 9, 1998, effective Aug. 30, 1999.*

**Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995.*

10 CSR 10-6.280 Compliance Monitoring Usage

PURPOSE: This rule is necessary to meet the federal Clean Air Act requirements for alternate compliance certification methods and to enhance the enforceability of the state implementation plan. This rule does this by establishing a methodology for identifying acceptable testing, monitoring or information.

(1) Applicability. This regulation applies to air pollution sources throughout Missouri.

(2) Definitions. Terms and phrases used in this rule may be found in 10 CSR 10-6.020 Definitions and Common Reference Tables.

(3) General Provisions.

(A) Compliance Certifications. Regardless of any other provision in any plan approved by the administrator, for the purpose of submission of compliance certificates the owner or operator is not prohibited from using the following in addition to any specified compliance methods:

1. Monitoring methods outlined in 40 CFR part 64;

2. Monitoring method(s) approved for the source pursuant to 10 CSR 10-6.065 Operating Permits, and incorporated into an operating permit; and

3. Any other monitoring methods approved by the director.

(B) Enforcement. Regardless of any other provision in the state implementation plan, any credible evidence may be used for the purpose of establishing whether a source or facility has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:

1. Monitoring methods outlined in 40 CFR part 64;

2. A monitoring method approved for the source pursuant to 10 CSR 10-6.065 Operating Permits, and incorporated into an operating permit; and

3. Compliance test methods specified in the rule cited as the authority for the emission limitations.

(4) Reporting and Record Keeping. *(Not Applicable)*

(5) Test Methods. The following testing, monitoring, or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:

(A) Applicable monitoring or testing methods, cited in: 10 CSR 10-6.030 Sampling Methods for Air Pollution Sources; 10 CSR 10-6.040 Reference Methods; 10 CSR 10-6.070 New Source Performance Standards; and 10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants; or

(B) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method in subsection (3)(B) or subsection (5)(A).

AUTHORITY: section 643.050, RSMo 2000. Original rule filed June 2, 1994, effective Dec. 30, 1994. Amended: Filed July 12, 2001, effective March 30, 2002.*

**Original authority: 643.050, RSMo, 1965, amended 1972, 1992, 1993, 1995.*

10 CSR 10-6.300 Conformity of General Federal Actions to State Implementation Plans

PURPOSE: This rule implements section 176(c) of the Clean Air Act, as amended (42 U.S.C. 7401 et seq.) and regulations under 40 CFR part 51 subpart W, with respect to the conformity of general federal actions to the applicable implementation plan. Under those authorities, no department, agency or instrumentality of the federal government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan. This rule sets forth policy, criteria, and procedures for demonstrating and assuring conformity of such actions to the applicable implementation plan. This rule applies to all areas in the state of Missouri which are designated as nonattainment or maintenance for any criteria pollutant or standard for which there is a national ambient air quality standard.

Editor's Note: The following material is incorporated into this rule by reference:

1) 42 ***United States Code*** *7401 and 7472 (Washington D.C.: U.S. Government Printing Office, 1989)*

2) 40 ***Code of Federal Regulations*** *part 50; part 51, subpart W, Revised as of July 1, 1995; and part 81 (Washington, D.C.: U.S. Government Printing Office, 1995);*

3) 23 ***United States Code*** *(Washington D.C.: U.S. Government Printing Office, 1995);*

4) 49 ***United States Code*** *1601 and 1607 (Washington, D.C.: U.S. Governmental Printing Office, 1995);*

5) 23 ***United States Code*** *134 (Washington D.C.: U.S. Government Printing Office, 1995);*

6) 40 ***Code of Federal Regulations*** *(Washington D.C.: U.S. Government Printing Office, 1995);*

*7) Environmental Protection Agency "****Compilation of Air Pollutant Emission Factors (AP42)****" 5th Edition, Jan. 1995, Office of Air Quality Planning and Standards, Office of Air and Radiation, E.P.A. Research Triangle Park, NC 27711);*

8) ***Guidelines on Air Quality Models*** *(Revised July 1986) (Research Triangle Park, N.C.: U.S. Environmental Protection Agency 1986).*

In accordance with section 536.031(4), RSMo, the full text of material incorporated by reference will be made available to any interested person at the Office of the Secretary of State and the headquarters of the adopting state agency.

(1) General.

(A) No department, agency or instrumentality of the federal government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan.

(B) Under Clean Air Act (CAA) section 176(c) and 40 CFR part 51 subpart W, a federal agency must make a determination that a federal action conforms to the applicable implementation plan in accordance with the requirements of this rule before the action is taken.

(C) Subsection (1)(B) of this rule does not include federal actions where either—

1. A National Environmental Policy Act (NEPA) analysis was completed as evidenced by a final environmental assessment (EA), environmental impact statement (EIS), or finding of no significant impact (FONSI) that was prepared prior to January 31, 1994; or

2. All of the following conditions are met:

A. Prior to January 31, 1994, an EA was commenced or a contract was awarded to develop the specific environmental analysis;

B. Sufficient environmental analysis is completed by March 15, 1994, so that the federal agency may determine that the federal action is in conformity with the specific requirements and the purposes of the applicable implementation plan pursuant to the agency's affirmative obligation under section 176(c) of the CAA; and

C. A written determination of conformity under section 176(c) of the CAA has been made by the federal agency responsible for the federal action by March 15, 1994.

(D) Notwithstanding any provision of this rule, a determination that an action is in conformity with the applicable implementation plan does not exempt the action from any other requirements of the applicable implementation plan, the NEPA, or the CAA.

(2) Definitions.

(A) Terms used but not defined in this rule shall have the meaning given them by the CAA and Environmental Protection Agency's (EPA's) regulations, in that order of priority. Definitions for some terms used in this rule may be found in 10 CSR 10-6.020.

(B) Additional definitions specific to this rule are as follows:

1. Affected federal land manager—the federal agency or the federal official charged with direct responsibility for management of

an area designated as Class I under the CAA (42 U.S.C. 7472) that is located within one hundred kilometers (100 km) of the proposed federal action;

2. Applicable implementation plan—the (portion) of the implementation plan, or most recent revision thereof, which has been approved under section 110 of the CAA, or promulgated under section 110(c) of the CAA (federal implementation plan), or promulgated or approved pursuant to regulations promulgated under section 301(d) of the CAA and which implements the relevant requirements of the CAA;

3. Area wide air quality modeling analysis—an assessment on a scale that includes the entire nonattainment or maintenance area which uses an air quality dispersion model to determine the effects of emissions on air quality;

4. CAA—the Clean Air Act, as amended;

5. Cause or contribute to a new violation—a federal action that—

A. Causes a new violation of a national ambient air quality standard (NAAQS) at a location in a nonattainment or maintenance area which would otherwise not be in violation of the standard during the future period in question if the federal action were not taken; or

B. Contributes, in conjunction with other reasonably foreseeable actions, to a new violation of a NAAQS at a location in a nonattainment or maintenance area in a manner that would increase the frequency or severity of the new violation;

6. Caused by, as used in the terms "direct emissions" and "indirect emissions"—emissions that would not otherwise occur in the absence of the federal action;

7. Criteria pollutant or standard—any pollutant for which there is established a NAAQS at 40 CFR part 50;

8. Direct emissions—those emissions of a criteria pollutant or its precursors that are caused or initiated by the federal action and occur at the same time and place as the action;

9. Emergency—a situation where extremely quick action on the part of the federal agencies involved is needed and where the timing of such federal activities makes it impractical to meet the requirements of this rule, such as natural disasters like hurricanes or earthquakes, civil disturbances such as terrorist acts, and military mobilizations;

10. Emissions budgets—those portions of the total allowable emissions defined in an EPA approved revision to the applicable implementation plan for a certain date for the purpose of meeting reasonable further progress milestones or attainment or maintenance demonstrations, for any criteria pollutant or its precursors, specifically allocated by the applicable implementation plan to mobile sources, to any stationary source or class of stationary sources, to any federal action or class of action, to any class of area sources, or to any subcategory of the emissions inventory. The allocation system must be specific enough to assure meeting the criteria of section 176(c)(1)(B) of the CAA. An emissions budget may be expressed in terms of an annual period, a daily period, or other period established in the applicable implementation plan;

11. Emission offsets, for purposes of section (8) of this rule—emissions reductions which are quantifiable, consistent with the applicable implementation plan attainment and reasonable further progress demonstrations, surplus to reductions required by, and credited to, other applicable implementation plan provisions, enforceable under both state and federal law, and permanent within the time frame specified by the program. Emissions reductions intended to be achieved as emissions offsets under this rule must be monitored and enforced in a manner equivalent to that under EPA's new source review requirements;

12. Emissions that a federal agency has a continuing program responsibility for—emissions that are specifically caused by an agency carrying out its authorities, and does not include emissions that occur due to subsequent activities, unless such activities are required by the federal agency. Where an agency, in performing its normal program responsibilities, takes actions itself or imposes conditions that result in air pollutant emissions by a nonfederal entity taking subsequent actions, such emissions are covered by the meaning of a continuing program responsibility;

13. EPA—the United States Environmental Protection Agency;

14. Federal action—any activity engaged in by a department, agency, or instrumentality of the federal government, or any activity that a department, agency or instrumentality of the federal government supports in any way, provides financial assistance for, licenses, permits, or approves, other than activities related to transportation plans, programs, and projects developed, funded, or approved under Title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601 et seq.). Where the federal action is a permit, license, or other approval for some aspect of a nonfederal undertaking, the relevant activity is the part, portion, or phase of the nonfederal undertaking that requires the federal permit, license, or approval;

15. Federal agency—for purposes of this rule, a federal department, agency, or instrumentality of the federal government;

16. Increase the frequency or severity of any existing violation of any standard in any area—to cause a nonattainment area to exceed a standard more often or to cause a violation at a greater concentration than previously existed or would otherwise exist during the future period in question, if the project were not implemented;

17. Indirect emissions—those emissions of a criteria pollutant or its precursors that—

A. Are caused by the federal action, but may occur later in time or may be farther removed in distance from the action itself but are still reasonably foreseeable; and

B. The federal agency can practicably control and will maintain control due to a continuing program responsibility of the federal agency, including, but not limited to—

(I) Traffic on or to, or stimulated or accommodated by, a proposed facility which is related to increases or other changes in the scale or timing of operations of such facility;

(II) Emissions related to the activities of employees of contractors or federal employees;

(III) Emissions related to employee commutation and similar programs to increase average vehicle occupancy imposed on all employers of a certain size in the locality; or

(IV) Emissions related to the use of federal facilities under lease or temporary permit.

18. Local air quality modeling analysis—an assessment of localized impacts on a scale smaller than the entire nonattainment or maintenance area, including, for example, congested roadway intersections and highways or transit terminals, which uses an air quality dispersion model to determine the effects of emissions on air quality;

19. Maintenance area—any geographic region of the United States previously designated nonattainment pursuant to the CAA Amendments of 1990 and subsequently redesignated to attainment subject to the requirement to develop a maintenance plan under section 175A of the CAA;

20. Maintenance plan—a revision to the applicable implementation plan, meeting the requirements of section 175A of the CAA;

21. Metropolitan planning organization (MPO)—that organization designated as being responsible, together with the state, for conducting the continuing, cooperative, and

comprehensive planning process under 23 U.S.C. 134 and 49 U.S.C. 1607;

22. Milestone—has the meaning given in sections 182(g)(1) and 189(c)(1) of the CAA. A milestone consists of an emissions level and the date on which it is required to be achieved;

23. National ambient air quality standards (NAAQS)—those standards established pursuant to section 109 of the CAA and include standards for carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone, particulate matter (PM_{10}), and sulfur dioxide (SO_2);

24. NEPA—the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.);

25. Nonattainment area (NAA)—any geographic area of the United States which has been designated as nonattainment under section 107 of the CAA and described in 40 CFR part 81;

26. Precursors of a criteria pollutant—

A. For ozone, nitrogen oxides (NO_x) (unless an area is exempted from NO_x requirements under section 182(f) of the CAA), and volatile organic compounds (VOCs); and

B. For PM_{10}, those pollutants described in the PM_{10} nonattainment area applicable implementation plan as significant contributors to the PM_{10} levels;

27. Reasonably foreseeable emissions—projected future indirect emissions that are identified at the time the conformity determination is made; the location of such emissions is known to the extent adequate to determine the impact of such emissions; and the emissions are quantifiable, as described and documented by the federal agency based on its own information and after reviewing any information presented to the federal agency;

28. Regionally significant action—a federal action for which the direct and indirect emissions of any pollutant represent ten percent (10%) or more of a nonattainment or maintenance area's emissions inventory for that pollutant;

29. Regional water or wastewater projects—include construction, operation, and maintenance of water or wastewater conveyances, water or wastewater treatment facilities, and water storage reservoirs which affect a large portion of a nonattainment or maintenance area; and

30. Total of direct and indirect emissions—the sum of direct and indirect emissions increases and decreases caused by the federal action; that is, the net emissions considering all direct and indirect emissions. Any emissions decreases used to reduce such total shall have already occurred or shall be enforceable under state and federal law. The portion of emissions which are exempt or presumed to conform under subsections (3)(C), (D), (E), or (F) of this rule are not included in the "total of direct and indirect emissions," except as provided in subsection (3)(J). The "total of direct and indirect emissions" includes emissions of criteria pollutants and emissions of precursors of criteria pollutants. The segmentation of projects for conformity analyses when emissions are reasonably foreseeable is not permitted by this rule.

(3) Applicability.

(A) Conformity determinations for federal actions related to transportation plans, programs, and projects developed, funded, or approved under Title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601 et seq.) must meet the procedures and criteria of 10 CSR 10-2.390 and 10 CSR 10-5.480, in lieu of the procedures set forth in this rule.

(B) For federal actions not covered by subsection (3)(A) of this rule, a conformity determination is required for each pollutant where the total of direct and indirect emissions in a nonattainment or maintenance area caused by a federal action would equal or exceed any of the rates in paragraph (3)(B)1. or 2. of this rule.

1. For purposes of subsection (3)(B) of this rule, the following rates apply in nonattainment areas (NAAs):

	Tons/Year
Ozone (VOC or NOx)	
Serious NAAs	50
Severe NAAs	25
Extreme NAAs	10
Other ozone NAAs outside an ozone transport region	100
Marginal and moderate NAAs inside an ozone transport region	
VOC	50
NOx	100
Carbon monoxide	
All NAAs	100
SO_2 or NO_2	
All NAAs	100
PM_{10}	
Moderate NAAs	100
Serious NAAs	70
Pb	
All NAAs	25

2. For purposes of subsection (3)(B) of this rule, the following rates apply in maintenance areas:

	Tons/Year
Ozone (NOx), SO_2 or NO_2	
All maintenance areas	100
Ozone (VOC)	
Maintenance areas inside an ozone transport region	50
Maintenance areas outside an ozone transport region	100
Carbon monoxide	
All maintenance areas	100
PM_{10}	
All maintenance areas	100
Pb	
All maintenance areas	25

(C) The requirements of this rule shall not apply to—

1. Actions where the total of direct and indirect emissions are below the emissions levels specified in subsection (3)(B) of this rule;

2. The following actions which would result in no emissions increase or an increase in emissions that is clearly *de minimis*:

A. Judicial and legislative proceedings;

B. Continuing and recurring activities such as permit renewals where activities conducted will be similar in scope and operation to activities currently being conducted;

C. Rulemaking and policy development and issuance;

D. Routine maintenance and repair activities, including repair and maintenance of administrative sites, roads, trails, and facilities;

E. Civil and criminal enforcement activities, such as investigations, audits, inspections, examinations, prosecutions, and the training of law enforcement personnel;

F. Administrative actions such as personnel actions, organizational changes, debt management or collection, cash management, internal agency audits, program budget proposals, and matters relating to the administration and collection of taxes, duties and fees;

G. The routine, recurring transportation of material and personnel;

H. Routine movement of mobile assets, such as ships and aircraft, in home port reassignments and stations (when no new support facilities or personnel are required) to perform as operational groups or for repair or overhaul;

I. Maintenance dredging and debris disposal where no new depths are required,

applicable permits are secured, and disposal will be at an approved disposal site;

J. With respect to existing structures, properties, facilities and lands where future activities conducted will be similar in scope and operation to activities currently being conducted at the existing structures, properties, facilities, and lands, actions such as relocation of personnel, disposition of federally-owned existing structures, properties, facilities, and lands, rent subsidies, operation and maintenance cost subsidies, the exercise of receivership or conservatorship authority, assistance in purchasing structures, and the production of coins and currency;

K. The granting of leases, licenses such as for exports and trade, permits, and easements where activities conducted will be similar in scope and operation to activities currently being conducted;

L. Planning, studies, and provision of technical assistance;

M. Routine operation of facilities, mobile assets and equipment;

N. Transfers of ownership, interests, and titles in land, facilities, and real and personal properties, regardless of the form or method of the transfer;

O. The designation of empowerment zones, enterprise communities, or viticultural areas;

P. Actions by any of the federal banking agencies or the federal reserve banks, including actions regarding charters, applications, notices, licenses, the supervision or examination of depository institutions or depository institution holding companies, access to the discount window, or the provision of financial services to banking organizations or to any department, agency or instrumentality of the United States;

Q. Actions by the Board of Governors of the Federal Reserve System or any federal reserve bank to effect monetary or exchange rate policy;

R. Actions that implement a foreign affairs function of the United States;

S. Actions (or portions thereof) associated with transfers of land, facilities, title, and real properties through an enforceable contract or lease agreement where the delivery of the deed is required to occur promptly after a specific, reasonable condition is met, such as promptly after the land is certified as meeting the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and where the federal agency does not retain continuing authority to control emissions associated with the lands, facilities, title, or real properties;

T. Transfers of real property, including land, facilities, and related personal property from a federal entity to another federal entity and assignments of real property, including land, facilities, and related personal property from a federal entity to another federal entity for subsequent deeding to eligible applicants; and

U. Actions by the Department of the Treasury to effect fiscal policy and to exercise the borrowing authority of the United States;

3. Actions where the emissions are not reasonably foreseeable, such as the following:

A. Initial Outer Continental Shelf lease sales which are made on a broad scale and are followed by exploration and development plans on a project level; and

B. Electric power marketing activities that involve the acquisition, sale and transmission of electric energy; and

4. Individual actions which implement a decision to conduct or carry out a program that has been found to conform to the applicable implementation plan, such as prescribed burning actions which are consistent with a land management plan that has been found to conform to the applicable implementation plan.

(D) Notwithstanding the other requirements of this rule, a conformity determination is not required for the following federal actions (or portion thereof):

1. The portion of an action that includes major new or modified stationary sources that require a permit under the new source review (NSR) program (section 173 of the CAA) or the prevention of significant deterioration (PSD) program (Title I, part C of the CAA);

2. Actions in response to emergencies or natural disasters such as hurricanes, earthquakes, etc., which are commenced on the order of hours or days after the emergency or disaster and, if applicable, which meet the requirements of subsection (3)(E) of this rule;

3. Research, investigations, studies, demonstrations, or training other than those exempted under paragraph (3)(C)2, of this rule, where no environmental detriment is incurred or the particular action furthers air quality research, as determined by the department;

4. Alteration and additions of existing structures as specifically required by new or existing applicable environmental legislation or environmental regulations (for example, hush houses for aircraft engines and scrubbers for air emissions); and

5. Direct emissions from remedial and removal actions carried out under the CERCLA and associated regulations to the extent such emissions either comply with the substantive requirements of the PSD/NSR permitting program or are exempted from other environmental regulation under the provisions of CERCLA and applicable regulations issued under CERCLA.

(E) Federal actions which are part of a continuing response to an emergency or disaster under paragraph (3)(D)2. of this rule and which are to be taken more than six (6) months after the commencement of the response to the emergency or disaster under paragraph (3)(D)2. of this rule are exempt from the requirements of this rule only if—

1. The federal agency taking the actions makes a written determination that, for a specified period not to exceed an additional six (6) months, it is impractical to prepare the conformity analyses which would otherwise be required and the actions cannot be delayed due to overriding concerns for public health and welfare, national security interests and foreign policy commitments; or

2. For actions which are to be taken after those actions covered by paragraph (3)(E)1. of this rule, the federal agency makes a new determination as provided in paragraph (3)(E)1. of this rule.

(F) Notwithstanding other requirements of this rule, individual actions or classes of actions specified by individual federal agencies that have met the criteria set forth in either paragraph (3)(G)1. or 2. and the procedures set forth in subsection (3)(H) of this rule are presumed to conform, except as provided in subsection (3)(J) of this rule.

(G) The federal agency must meet the criteria for establishing activities that are presumed to conform by fulfilling the requirements set forth in either paragraph (3)(G)1. or 2. of this rule.

1. The federal agency must clearly demonstrate using methods consistent with this rule that the total of direct and indirect emissions from the type of activities which would be presumed to conform would not—

A. Cause or contribute to any new violation of any standard in any area;

B. Interfere with provisions in the applicable implementation plan for maintenance of any standard;

C. Increase the frequency or severity of any existing violation of any standard in any area; or

D. Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area including, where applicable, emission levels specified in the applicable implementation plan for purposes of—

(I) A demonstration of reasonable further progress;

(II) A demonstration of attainment; or

(III) A maintenance plan; or

2. The federal agency must provide documentation that the total of direct and indirect emissions from such future actions would be below the emission rates for a conformity determination that are established in subsection (3)(B) of this rule, based, for example, on similar actions taken over recent years.

(H) In addition to meeting the criteria for establishing exemptions set forth in paragraph (3)(G)1. or 2. of this rule, the following procedures must also be complied with to presume that activities will conform:

1. The federal agency must identify through publication in the *Federal Register* its list of proposed activities that are presumed to conform and the analysis, assumptions, emissions factors, and criteria used as the basis for the presumptions;

2. The federal agency must notify the appropriate EPA regional office(s), state and local air quality agencies and, where applicable, the agency designated under section 174 of the CAA and the MPO and provide at least thirty (30) days for the public to comment on the list of proposed activities presumed to conform;

3. The federal agency must document its response to all the comments received and make the comments, response, and final list of activities available to the public upon request; and

4. The federal agency must publish the final list of such activities in the *Federal Register*.

(I) Notwithstanding the other requirements of this rule, when the total of direct and indirect emissions of any pollutant from a federal action does not equal or exceed the rates specified in subsection (3)(B) of this rule, but represents ten percent (10%) or more of a nonattainment or maintenance area's total emissions of that pollutant, the action is defined as a regionally significant action and the requirements of sections (1) and (5)–(10) of this rule shall apply for the federal action.

(J) Where an action presumed to be *de minimis* under paragraph (3)(C)1. or 2. of this rule or otherwise presumed to conform under subsection (3)(F) of this rule is a regionally significant action or where an action otherwise presumed to conform under subsection (3)(F) of this rule does not in fact meet one (1) of the criteria in paragraph (3)(G)1. of this rule, that action shall not be considered *de minimis* or presumed to conform and the requirements of sections (1) and (5)–(10) of this rule shall apply for the federal action.

(K) The provisions of this rule shall apply in all nonattainment and maintenance areas.

(L) Any measures used to affect or determine applicability of this rule, as determined under this section, must result in projects that are in fact *de minimis*, must result in such *de minimis* levels prior to the time the applicability determination is made, and must be state or federally enforceable. Any measures that are intended to reduce air quality impacts for this purpose must be identified (including the identification and quantification of all emission reductions claimed) and the process for implementation (including any necessary funding of such measures and tracking of such emission reductions) and enforcement of such measures must be described, including an implementation schedule containing explicit timelines for implementation. Prior to a determination of applicability, the federal agency making the determination must obtain written commitments from the appropriate persons or agencies to implement any measures which are identified as conditions for making such determinations. Such written commitment shall describe such mitigation measures and the nature of the commitment, in a manner consistent with the previous sentence. After this rule is approved by EPA as a revision to the applicable implementation plan, enforceability through the applicable implementation plan of any measures necessary for a determination of applicability will apply to all persons who agree to reduce direct and indirect emissions associated with a federal action for a conformity applicability determination.

(4) Conformity Analysis. Any federal department, agency, or instrumentality of the federal government taking an action subject to 40 CFR part 51 subpart W and this rule must make its own conformity determination consistent with the requirements of this rule. In making its conformity determination, a federal agency must consider comments from any interested parties. Where multiple federal agencies have jurisdiction for various aspects of a project, a federal agency may choose to adopt the analysis of another federal agency (to the extent the proposed action and impacts analyzed are the same as the project for which a conformity determination is required) or develop its own analysis in order to make its conformity determination.

(5) Reporting Requirements.

(A) A federal agency making a conformity determination under section (8) must provide to the appropriate EPA regional office(s), state and local air quality agencies and, where applicable, affected federal land managers, the agency designated under section 174 of the CAA and the MPO a thirty (30)-day notice which describes the proposed action and the federal agency's draft conformity determination on the action.

(B) A federal agency must notify the appropriate EPA regional office(s), state and local air quality agencies and, where applicable, affected federal land managers, the agency designated under section 174 of the CAA and the MPO within thirty (30) days after making a final conformity determination under section (8).

(6) Public Participation and Consultation.

(A) Upon request by any person regarding a specific federal action, a federal agency must make available for review its draft conformity determination under section (8) with supporting materials which describe the analytical methods, assumptions, and conclusions relied upon in making the applicability analysis and draft conformity determination.

(B) A federal agency must make public its draft conformity determination under section (8) by placing a notice by prominent advertisement in a daily newspaper of general circulation in the areas affected by the action and by providing thirty (30) days for written public comment prior to taking any formal action on the draft determination. This comment period may be concurrent with any other public involvement, such as occurs in the NEPA process.

(C) A federal agency must document its response to all the comments received on its draft conformity determination under section (8) and make the comments and responses available, upon request by any person regarding a specific federal action, within thirty (30) days of the final conformity determination.

(D) A federal agency must make public its final conformity determination under section (8) for a federal action by placing a notice by prominent advertisement in a daily newspaper of general circulation in the areas affected by the action within thirty (30) days of the final conformity determination.

(7) Frequency of Conformity Determinations.

(A) The conformity status of a federal action automatically lapses five (5) years from the date a final conformity determination is reported under section (5), unless the federal action has been completed or a continuous program has been commenced to implement that federal action within a reasonable time.

(B) Ongoing federal activities at a given site showing continuous progress are not new actions and do not require periodic redeterminations so long as the emissions associated with such activities are within the scope of the final conformity determination reported under section (5).

(C) If, after the conformity determination is made, the federal action is changed so that there is an increase in the total of direct and indirect emissions above the levels in subsection (3)(B), a new conformity determination is required.

(8) Criteria for Determining Conformity of General Federal Actions.

(A) An action required under section (3) to have a conformity determination for a specific pollutant, will be determined to conform to the applicable implementation plan if, for each pollutant that exceeds the rates in subsection (3)(B), or otherwise requires a conformity determination due to the total of direct and indirect emissions from the action, the action meets the requirements of subsection (8)(C) of this rule, and meets any of the following requirements:

1. For any criteria pollutant, the total of direct and indirect emissions from the action are specifically identified and accounted for in the applicable implementation plan's attainment or maintenance demonstration;

2. For ozone or nitrogen dioxide, the total of direct and indirect emissions from the action are fully offset within the same nonattainment or maintenance area through a revision to the applicable implementation plan or a measure similarly enforceable under state and federal law that effects emission reductions so that there is no net increase in emissions of that pollutant;

3. For any criteria pollutant, except ozone and nitrogen dioxide, the total of direct and indirect emissions from the action meet the requirements—

A. Specified in subsection (8)(B) of this rule, based on areawide air quality modeling analysis and local air quality modeling analysis; or

B. Specified in paragraph (8)(A)5. of this rule and, for local air quality modeling analysis, the requirement of subsection (8)(B) of this rule;

4. For CO or PM_{10}—

A. Where the department determines (in accordance with sections (5) and (6) and consistent with the applicable implementation plan) that an areawide air quality modeling analysis is not needed, the total of direct and indirect emissions from the action meet the requirements specified in subsection (8)(B) of this rule, based on local air quality modeling analysis; or

B. Where the department determines (in accordance with sections (5) and (6) and consistent with the applicable implementation plan) that an areawide air quality modeling analysis is appropriate and that a local air quality modeling analysis is not needed, the total of direct and indirect emissions from the action meet the requirements specified in subsection (8)(B) of this rule, based on areawide modeling, or meet the requirements of paragraph (8)(A)5. of this rule; or

5. For ozone or nitrogen dioxide, and for purposes of subparagraphs (8)(A)3.B. and (8)(A)4.B. of this rule, each portion of the action or the action as a whole meets any of the following requirements:

A. Where EPA has approved a revision to an area's attainment or maintenance demonstration after 1990 and the state makes a determination as provided in part (I) or where the state makes a commitment as provided in part (II). Any such determination or commitment shall be made in compliance with sections (5) and (6).

(I) The total of direct and indirect emissions from the action (or portion thereof) is determined and documented by the department to result in a level of emissions which, together with all other emissions in the nonattainment (or maintenance) area, would not exceed the emissions budgets specified in the applicable implementation plan.

(II) The total of direct and indirect emissions from the action (or portion thereof) is determined by the department to result in a level of emissions which, together with all other emissions in the nonattainment (or maintenance) area, would exceed an emissions budget specified in the applicable implementation plan and the department makes a written commitment to EPA which includes the following:

(a) A specific schedule for adoption and submittal of a revision to the applicable implementation plan which would achieve the needed emission reductions prior to the time emissions from the federal action would occur;

(b) Identification of specific measures for incorporation into the applicable implementation plan which would result in a level of emissions which, together with all other emissions in the nonattainment or maintenance area, would not exceed any emissions budget specified in the applicable implementation plan;

(c) A demonstration that all existing applicable implementation plan requirements are being implemented in the area for the pollutants affected by the federal action, and that local authority to implement additional requirements has been fully pursued;

(d) A determination that the responsible federal agencies have required all reasonable mitigation measures associated with their action; and

(e) Written documentation including all air quality analyses supporting the conformity determination.

(III) Where a federal agency made a conformity determination based on a state commitment under part (8)(A)5.A.(II) of this rule, such a state commitment is automatically deemed a call for an implementation plan revision by EPA under section 110(k)(5) of the CAA, effective on the date of the federal conformity determination and requiring response within eighteen (18) months or any shorter time within which the state commits to revise the applicable implementation plan;

B. The action (or portion thereof), as determined by the MPO, is specifically included in a current transportation plan and transportation improvement program which have been found to conform to the applicable implementation plan under 10 CSR 10-2.390 or 10 CSR 10-5.480;

C. The action (or portion thereof) fully offsets its emissions within the same nonattainment or maintenance area through a revision to the applicable implementation plan or an equally enforceable measure that effects emission reductions equal to or greater than the total of direct and indirect emissions from the action so that there is no net increase in emissions of that pollutant;

D. Where EPA has not approved a revision to the relevant implementation plan attainment or maintenance demonstration since 1990, the total of direct and indirect emissions from the action for the future years (described in subsection (9)(D) of this rule) do not increase emissions with respect to the baseline emissions, and—

(I) The baseline emissions reflect the historical activity levels that occurred in the geographic area affected by the proposed federal action during—

(a) Calendar year 1990;

(b) The calendar year that is the basis for the classification (or, where the classification is based on multiple years, the year that is most representative in terms of the level of activity), if a classification is promulgated in 40 CFR part 81; or

(c) The year of the baseline inventory in the PM_{10} applicable implementation plan; and

(II) The baseline emissions are the total of direct and indirect emissions calculated for the future years (described in

subsection (9)(D) of this rule) using the historic activity levels (described in part (8)(A)5.D.(I) of this rule) and appropriate emission factors for the future years; or

E. Where the action involves regional water or wastewater projects, such projects are sized to meet only the needs of population projections that are in the applicable implementation plan, based on assumptions regarding per capita use that are developed or approved in accordance with subsection (9)(A).

(B) The areawide and local air quality modeling analyses must—

1. Meet the requirements in section (9); and

2. Show that the action does not—

A. Cause or contribute to any new violation of any standard in any area; or

B. Increase the frequency or severity of any existing violation of any standard in any area.

(C) Notwithstanding any other requirements of this section, an action subject to this rule may not be determined to conform to the applicable implementation plan unless the total of direct and indirect emissions from the action is in compliance or consistent with all relevant requirements and milestones contained in the applicable implementation plan, such as elements identified as part of the reasonable further progress schedules, assumptions specified in the attainment or maintenance demonstration, prohibitions, numerical emission limits, and work practice requirements, and such action is otherwise in compliance with all relevant requirements of the applicable implementation plan.

(D) Any analyses required under this section must be completed, and any mitigation requirements necessary for a finding of conformity must be identified in compliance with section (10), before the determination of conformity is made.

(9) Procedures for Conformity Determinations of General Federal Actions.

(A) The analyses required under this rule must be based on the latest planning assumptions.

1. All planning assumptions (including, but not limited to, per capita water and sewer use, vehicle miles traveled per capita or per household, trip generation per household, vehicle occupancy, household size, vehicle fleet mix, vehicle ownership, wood stoves per household, and the geographic distribution of population growth) must be derived from the estimates of current and future population, employment, travel, and congestion most recently developed by the MPO. The conformity determination must also be based on the latest assumptions about current and future background concentrations and other federal actions.

2. Any revisions to these estimates used as part of the conformity determination, including projected shifts in geographic location or level of population, employment, travel, and congestion, must be approved by the MPO or other agency authorized to make such estimates for the area.

(B) The analyses required under this rule must be based on the latest and most accurate emission estimation techniques available as described below, unless such techniques are inappropriate. If such techniques are inappropriate and written approval of the EPA regional administrator is obtained for any modification or substitution, they may be modified or another technique substituted on a case-by-case basis or, where appropriate, on a generic basis for a specific federal agency program.

1. For motor vehicle emissions, the most current version of the motor vehicle emissions model specified by EPA for use in the preparation or revision of implementation plans in the state or area must be used for the conformity analysis as specified below:

A. The EPA must publish in the *Federal Register* a notice of availability of any new motor vehicle emissions model; and

B. A grace period of three (3) months shall apply during which the motor vehicle emissions model previously specified by EPA as the most current version may be used. Conformity analyses for which the analysis was begun during the grace period or no more than three (3) years before the *Federal Register* notice of availability of the latest emission model may continue to use the previous version of the model specified by EPA.

2. For nonmotor vehicle sources, including stationary and area source emissions, the latest emission factors specified by EPA in the "Compilation of Air Pollutant Emission Factors (AP-42)" must be used for the conformity analysis unless more accurate emission data are available, such as actual stack test data from stationary sources which are part of the conformity analysis.

(C) The air quality modeling analyses required under this rule must be based on the applicable air quality models, databases, and other requirements specified in the most recent version of the "Guideline on Air Quality Models (Revised)" (1986), including supplements (EPA publication no. 450/2-78-027R), unless—

1. The guideline techniques are inappropriate, in which case the model may be modified or another model substituted on a case-by-case basis or, where appropriate, on a generic basis for a specific federal agency program; and

2. Written approval of the EPA regional administrator is obtained for any modification or substitution.

(D) The analyses required under this rule must be based on the total of direct and indirect emissions from the action and must reflect emission scenarios that are expected to occur under each of the following cases:

1. The CAA mandated attainment year or, if applicable, the farthest year for which emissions are projected in the maintenance plan;

2. The year during which the total of direct and indirect emissions from the action for each pollutant analyzed is expected to be the greatest on an annual basis; and

3. Any year for which the applicable implementation plan specifies an emissions budget.

(10) Mitigation of Air Quality Impacts.

(A) Any measures that are intended to mitigate air quality impacts must be identified (including the identification and quantification of all emission reductions claimed) and the process for implementation (including any necessary funding of such measures and tracking of such emission reductions) and enforcement of such measures must be described, including an implementation schedule containing explicit timelines for implementation.

(B) Prior to determining that a federal action is in conformity, the federal agency making the conformity determination must obtain written commitments from the appropriate persons or agencies to implement any mitigation measures which are identified as conditions for making conformity determinations. Such written commitment shall describe such mitigation measures and the nature of the commitment, in a manner consistent with subsection (10)(A) of this rule.

(C) Persons or agencies voluntarily committing to mitigation measures to facilitate positive conformity determinations must comply with the obligations of such commitments.

(D) In instances where the federal agency is licensing, permitting or otherwise approving the action of another governmental or private entity, approval by the federal agency must be conditioned on the other entity meeting the mitigation measures set forth in the conformity determination, as provided in subsection (10)(A) of this rule.

(E) When necessary because of changed circumstances, mitigation measures may be modified so long as the new mitigation measures continue to support the conformity

determination in accordance with sections (8) and (9) and this section. Any proposed change in the mitigation measures is subject to the reporting requirements of section (5) and the public participation requirements of section (6).

(F) Written commitments to mitigation measures must be obtained prior to a positive conformity determination and such commitments must be fulfilled.

(G) After this rule is approved by EPA as an implementation plan revision, any agreements, including mitigation measures, necessary for a conformity determination will be both state and federally enforceable. Enforceability through the applicable implementation plan will apply to all persons who agree to mitigate direct and indirect emissions associated with a federal action for a conformity determination.

(11) Savings Provision. The federal conformity rules under 40 CFR part 51 subpart W, in addition to any existing applicable state requirements, establish the conformity criteria and procedures necessary to meet the requirements of Clean Air Act section 176(c) until such time as this rule is approved by EPA as an implementation plan revision. Following EPA approval of this rule as a revision to the applicable implementation plan (or a portion thereof), the approved (or approved portion of the) state criteria and procedures will govern conformity determinations and the federal conformity regulations contained in 40 CFR part 93 will apply only for the portion, if any, of the state's conformity provisions that is not approved by EPA. In addition, any previously applicable implementation plan requirements relating to conformity remain enforceable until the state revises its applicable implementation plan to specifically remove them and that revision is approved by EPA.

AUTHORITY: section 643.050, RSMo 1994. Original rule filed Oct. 4, 1994, effective May 28, 1995. Amended: Filed Jan. 30, 1996, effective Sept. 30, 1996.*

**Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995.*

10 CSR 10-6.310 Restriction of Emissions from Municipal Solid Waste Landfills

PURPOSE: This rule requires owners of municipal solid waste landfills to report their landfill's design capacity and non-methane organic compound (NMOC) emissions. Landfills having design capacities of 2.5 million cubic meters or greater and NMOC emission rates of 50 megagrams or greater shall design, install and operate a gas collection and control system.

PUBLISHER'S NOTE: The publication of the full text of the material that the adopting agency has incorporated by reference in this rule would be unduly cumbersome or expensive. Therefore, the full text of that material will be made available to any interested person at both the Office of the Secretary of State and the office of the adopting agency, pursuant to section 536.031.4, RSMo. Such material will be provided at the cost established by state law.

(1) Applicability.

(A) This rule applies to each municipal solid waste (MSW) landfill for which construction, reconstruction or modification was commenced before May 30, 1991, and has accepted waste at any time since November 8, 1987, or has additional design capacity available for future waste deposition. Landfills for which construction, reconstruction or modification was commenced on May 30, 1991 or after, are covered under the Environmental Protection Agency's New Source Performance Standard for Municipal Solid Waste Landfills.

(B) Physical or operational changes made to an existing MSW landfill solely to comply with this rule are not considered construction, reconstruction, or modification for the purposes of this rule.

(C) MSW landfills covered by 10 CSR 10-5.490 are exempt from this rule.

(D) For purposes of obtaining an operating permit under Title V of the Clean Air Act, the owner or operator of an MSW landfill subject to this rule with a design capacity less than two and one-half (2.5) million megagrams or two and one-half (2.5) million cubic meters is not subject to the requirements to obtain an operating permit for the landfill under 40 *Code of Federal Regulations* (CFR) part 70 or 71, unless the landfill is otherwise subject to either 40 CFR part 70 or 71. For purposes of submitting a timely application for an operating permit under 40 CFR part 70 or 71, the owner or operator of an MSW landfill subject to the rule with a design capacity greater than or equal to two and one-half (2.5) million megagrams and two and one-half (2.5) million cubic meters on the effective date of EPA approval of the state's program under section 111(d) of the Clean Air Act (June 23, 1998), and not otherwise subject to either 40 CFR part 70 or 71, becomes subject to the requirements of section 70.5(a)(1)(i) or 71.5(a)(1)(i) of the Clean Air Act ninety (90) days after the effective date of such 111(d) program approval, even if the design capacity report is submitted earlier.

(E) When an MSW landfill subject to this rule is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under 40 CFR part 70 or 71 for the landfill if the landfill is not otherwise subject to the requirements of either 40 CFR part 70 or 71 and if either of the following conditions is met:

1. The landfill was never subject to a requirement for a control system under section (3) of this rule; or

2. The owner or operator meets the conditions for control system removal specified in section 60.752(b)(2)(v) of subpart WWW.

(2) Definitions. Definitions of certain terms specified in this rule may be found in 10 CSR 10-6.020. Additional definitions are as follows:

(A) Active collection system—A gas collection system that uses gas mover equipment;

(B) Active landfill—A landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future;

(C) Closed landfill—A landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under 40 *Code of Federal Regulations* (CFR) part 60.7(a)(4) (incorporated by reference). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed.

(D) Closure—That point in time when a landfill becomes a closed landfill;

(E) Commercial solid waste—All types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes;

(F) Controlled landfill—Any landfill at which collection and control systems are required under this rule as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled if a collection and control system design plan is submitted in compliance with subparagraph (3)(B)2.A. of this rule;

(G) Design capacity—The maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent construction or operating permit issued by the state or local agency responsible for regulating the landfill, plus any in-place waste not accounted for in the most recent permit. If the owner or operator chooses to convert the design capacity from

volume to mass or from mass to volume to demonstrate its design capacity is less than two and one-half (2.5) million megagrams or two and one-half (2.5) million cubic meters, the calculation must include a site-specific density, which must be recalculated annually;

(H) Disposal facility—All contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste;

(I) Emission rate cutoff—The threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required;

(J) Enclosed combustor—An enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor;

(K) Flare—An open combustor without enclosure or shroud;

(L) Gas mover equipment—The equipment (that is, fan, blower, compressor) used to transport landfill gas through the header system;

(M) Household waste—Any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas);

(N) Industrial solid waste—Solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act, 40 CFR parts 264 and 265 (incorporated by reference). Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste;

(O) Interior well—Any well or similar collection component located inside the perimeter of the landfill waste. A perimeter well located outside the landfilled waste is not an interior well;

(P) Landfill—An area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under 40 CFR part 257.2 (incorporated by reference);

(Q) Lateral expansion—A horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill;

(R) Modification—An increase in the permitted volume design capacity of the landfill by either horizontal or vertical expansion based on its most recent permitted design capacity. Modification does not occur until the owner or operator commences construction on the horizontal or vertical expansion;

(S) Municipal solid waste landfill or MSW landfill—An entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of Resource Conservation and Recovery Act (RCRA) Subtitle D wastes, 40 CFR part 257.2 (incorporated by reference) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion;

(T) Municipal solid waste landfill emissions or MSW landfill emissions—Gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste;

(U) NMOC—Nonmethane organic compounds, as measured according to the provisions of section (5) of this rule;

(V) Nondegradable waste—Any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals;

(W) Passive collection system—A gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment;

(X) Sludge—Any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant;

(Y) Solid waste—Any garbage, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under 33 U.S.C. 1342 (incorporated by reference), or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq., incorporated by reference);

(Z) Sufficient density—Any number, spacing, and combination of collection system components, including vertical wells, horizontal collectors, and surface collectors, necessary to maintain emission and migration control as determined by measures of performance set forth in this rule; and

(AA) Sufficient extraction rate—A rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the life of the blower.

(3) Standards for Air Emissions from Municipal Solid Waste Landfills.

(A) Each owner or operator of an MSW landfill having a design capacity less than two and one-half (2.5) million megagrams by mass or two and one-half (2.5) million cubic meters by volume shall submit an initial design capacity report to the director as provided in subsection (8)(A) of this rule. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. For purposes of part 70 permitting under 10 CSR 10-6.065, a landfill with a design capacity less than two and one-half (2.5) million megagrams or two and one-half (2.5) million cubic meters does not require an operating permit under 40 CFR part 70. Submittal of the initial design capacity report shall fulfill the requirements of this rule except as provided for in paragraphs (3)(A)1. and 2. of this rule.

1. The owner or operator shall submit to the director an amended design capacity report, as provided for in paragraph (8)(A)3. of this rule, when there is any increase in the design capacity of a landfill subject to the provisions of this rule, whether the increase results from an increase in the area or depth

of the landfill, a change in the operating procedures of the landfill, or any other means.

2. If any increase in the maximum design capacity of a landfill exempted from the provisions of subsection (3)(B) through section (10) of this rule on the basis of the design capacity exemption in subsection (3)(A) of this rule, results in a revised maximum design capacity equal to or greater than two and one-half (2.5) million megagrams and two and one-half (2.5) million cubic meters, the owner or operator shall comply with the provisions of subsection (3)(B) of this rule.

(B) Each owner or operator of an MSW landfill having a design capacity equal to or greater than two and one-half (2.5) million megagrams and two and one-half (2.5) million cubic meters, shall either comply with paragraph (3)(B)2. of this rule or calculate an NMOC emission rate for the landfill using the procedures specified in section (5) of this rule. The NMOC emission rate shall be recalculated annually, except as provided in subparagraph (8)(B)1.B. of this rule. The owner or operator of an MSW landfill subject to this rule with a design capacity greater than or equal to two and one-half (2.5) million megagrams and two and one-half (2.5) million cubic meters is subject to part 70 permitting requirements. When a landfill is closed, and either never needed control or meets the conditions for control system removal specified in subparagraph (3)(B)2.E. of this rule, a part 70 operating permit is no longer required.

1. If the calculated NMOC emission rate is less than fifty (50) megagrams per year, the owner or operator shall—

A. Submit an annual emission report to the director, except as provided for in subparagraph (8)(B)1.B. of this rule; and

B. Recalculate the NMOC emission rate annually using the procedures specified in paragraph (5)(A)1. of this rule until such time as the calculated NMOC emission rate is equal to or greater than fifty (50) megagrams per year, or the landfill is closed.

(I) If the NMOC emission rate, upon recalculation required in subparagraph (3)(B)1.B. of this rule is equal to or greater than fifty (50) megagrams per year, the owner or operator shall install a collection and control system in compliance with paragraph (3)(B)2. of this rule.

(II) If the landfill is permanently closed, a closure notification shall be submitted to the director as provided for in subsection (8)(D) of this rule.

2. If the calculated NMOC emission rate is equal to or greater than fifty (50) megagrams per year, the owner or operator shall—

A. Submit a collection and control system design plan prepared by a professional engineer to the director within one (1) year. Permit modification approval from the Missouri Department of Natural Resources' Solid Waste Management Program shall be required prior to construction of any gas collection system.

(I) The collection and control system as described in the plan shall meet the design requirements of subparagraph (3)(B)2.B. of this rule.

(II) The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, record keeping or reporting provisions of sections (4) through (9) of this rule proposed by the owner or operator.

(III) The collection and control system design plan shall either conform with specifications for active collection systems in section (10) of this rule or include a demonstration to the director's satisfaction, such that human health and safety is protected, of the sufficiency of the alternative provisions to section (10) of this rule.

(IV) The director shall review the information submitted under parts (3)(B)2.A.(I), (II) and (III) of this rule and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems;

B. Install a collection and control system that captures the gas generated within the landfill as required by part (3)(B)2.B.(I) or (II) and subparagraph (3)(B)2.C. of this rule within thirty (30) months after the first annual report in which the emission rate equals or exceeds fifty (50) megagrams per year, unless Tier 2 or Tier 3 sampling under section (5) of this rule demonstrates that the emission rate is less than fifty (50) megagrams per year, as specified in paragraph (8)(C)1. or 2. of this rule.

(I) An active collection system shall—

(a) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

(b) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of—

I. Five (5) years or more if active; or

II. Two (2) years or more if closed or at final grade;

(c) Collect gas at a sufficient extraction rate; and

(d) Be designed to minimize off-site migration of subsurface gas.

(II) A passive collection system shall—

(a) Comply with the provisions specified in subparts (3)(B)2.B.(I)(a), (b) and (d) of this rule; and

(b) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR part 258.40 (incorporated by reference);

C. Route all the collected gas to one or more of the following control systems:

(I) An open flare designed and operated in accordance with 40 CFR part 60.18 (incorporated by reference);

(II) A control system designed and operated to reduce NMOC by ninety-eight (98) weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by ninety-eight (98) weight-percent or reduce the outlet NMOC concentration to less than twenty parts per million by volume (20 ppmv), dry basis as hexane at three percent (3%) oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test, to be completed no later than one hundred eighty (180) days after the initial startup of the approved control system using the test methods specified in subsection (5)(D) of this rule.

(a) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

(b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in section (7) of this rule; or

(III) A system that routes the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of part (3)(B)2.C.(I) or (II) of this rule;

D. Operate the collection and control device installed to comply with this rule in

accordance with the provisions of sections (4), (6) and (7) of this rule;

E. The collection and control system may be capped or removed provided that all the conditions of parts (3)(B)2.E.(I), (II) and (III) of this rule are met—

(I) The landfill shall be no longer accepting solid waste and be permanently closed under the requirements of 40 CFR part 258.60 (incorporated by reference). A closure report shall be submitted to the director as provided in subsection (8)(D) of this rule;

(II) The collection and control system shall have been in operation a minimum of fifteen (15) years; and

(III) Following the procedures specified in subsection (5)(B) of this rule, the calculated NMOC gas produced by the landfill shall be less than fifty (50) megagrams per year on three (3) successive test dates. The test dates shall be no less than ninety (90) days apart, and no more than one hundred eighty (180) days apart; and

F. The planning, awarding of contracts, and installation of MSW landfill air emission collection and control equipment capable of meeting the emission standards in subsection (3)(B) of this rule shall be accomplished within thirty (30) months after the date the initial NMOC emission rate report shows NMOC emissions equal or exceed fifty (50) megagrams per year.

(4) Operational Standards for Collection and Control Systems. Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of subparagraph (3)(B)2.B. of this rule shall—

(A) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for—

1. Five (5) years or more if active; or

2. Two (2) years or more if closed or at final grade;

(B) Operate the collection system with negative pressure at each well head except under the following conditions:

1. A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in paragraph (8)(F)1. of this rule;

2. Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan; and

3. A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the director;

(C) Operate each interior wellhead in the collection system with a landfill gas temperature less than fifty-five degrees Celsius (55°C) and with either a nitrogen level less than twenty percent (20%) or an oxygen level less than five percent (5%). The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

1. The nitrogen level shall be determined using Method 3C of Appendix A, 40 CFR part 60 (incorporated by reference), unless an alternative test method is established as allowed by subparagraph (3)(B)2.A. of this rule.

2. Unless an alternative test method is established as allowed by subparagraph (3)(B)2.A. of this rule, the oxygen shall be determined by an oxygen meter using Method 3A of Appendix A, 40 CFR Part 60 (incorporated by reference), except that—

A. The span shall be set so that the regulatory limit is between twenty and fifty percent (20%–50%) of the span;

B. A data recorder is not required;

C. Only two (2) calibration gases are required, a zero and span, and ambient air may be used as the span;

D. A calibration error check is not required; and

E. The allowable sample bias, zero drift, and calibration drift are plus or minus ten percent (±10%);

(D) Operate the collection system so that the methane concentration is less than five hundred (500) parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area along a pattern that traverses the landfill at thirty (30)-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the thirty (30)-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing;

(E) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with subparagraph (3)(B)2.C.of this rule. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within one (1) hour;

(F) Operate the control or treatment system at all times when the collected gas is routed to the system; and

(G) If monitoring demonstrates that the operational requirements in subsection (4)(B), (C), or (D) of this rule are not met, corrective action shall be taken as specified in paragraph (3)(A)3. through 5. or subsection (6)(C) of this rule. If corrective actions are taken as specified in section (6) of this rule, the monitored exceedance is not a violation of the operational requirements in this section.

(5) Test Methods and Procedures.

(A) NMOC Emission Rate Calculation.

1. The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in subparagraph (5)(A)1.A. of this rule or the equation provided in subparagraph (5)(A)1.B. of this rule. Both equations may be used if the actual year-to-year solid waste acceptance rate is known. The values to be used in both equations are 0.05 per year for k, one hundred seventy (170) cubic meters per megagram for L_o, and four thousand (4,000) parts per million by volume as hexane for the C_{NMOC}. For landfills located in geographical areas with a thirty (30)-year annual average precipitation of less than twenty-five inches (25"), as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

A. The following equation shall be used if the actual year-to-year solid waste acceptance rate is known. The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if the documentation of the nature and amount of such wastes is maintained.

$$M_{NMOC} = \sum_{i=1}^{n} 2kL_o M_i (e^{-kt_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year

k = methane generation rate constant, year $^{-1}$

L_o = methane generation potential, cubic meters per megagram solid waste

M_i = mass of solid waste in the i^{th} section, megagrams

t_i = age of the i^{th} section, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

3.6×10^{-9} = conversion factor

B. The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown. The mass of nondegradable solid waste may be subtracted from the average annual acceptance rate when calculating a value for R, if the documentation provisions of paragraph (9)(D)2. of this rule are followed.

$$M_{NMOC} = 2 L_o R (e^{-kc} - e^{-kt}) (C_{NMOC})(3.6 \times 10^{-9})$$

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year

L_o = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, year^{-1}

t = age of landfill, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

c = time since closure, years. For active landfill c = 0 and $e^{-kc} = 1$

3.6×10^{-9} = conversion factor

2. Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of fifty (50) megagrams per year.

A. If the NMOC emission rate calculated in paragraph (5)(A)1. of this rule is less than fifty (50) megagrams per year, then the landfill owner shall submit an emission rate report as provided in paragraph (8)(B)1. of this rule, and shall recalculate the NMOC mass emission rate annually as required under paragraph (3)(B)1. of this rule.

B. If the calculated NMOC emission rate is equal to or greater than fifty (50) megagrams per year, then the landfill owner shall either comply with paragraph (3)(B)2. of this rule, or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in paragraph (5)(A)3. of this rule.

3. Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two (2) sample probes per hectare of landfill surface that has retained waste for at least two (2) years. If the landfill is larger than twenty-five (25) hectares in area, only fifty (50) samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one (1) sample of landfill gas from each probe to determine the NMOC concentration using Method 25C or Method 18 of Appendix A, 40 CFR part 60 (incorporated by reference). If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent *Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources* (AP-42), available from the Government Printing Office. If composite sampling is used, equal volumes shall be taken from each sample probe. If more than the required number of samples are taken, all samples shall be used in the analysis. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six (6) to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

A. The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in subparagraph (5)(A)1.A. or B.of this rule and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in paragraph (5)(A)1. of this rule.

B. If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than fifty (50) megagrams per year, then the landfill owner or operator shall either comply with paragraph (3)(B)2. of this rule, or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in paragraph (5)(A)4. of this rule.

C. If the resulting NMOC mass emission rate is less than fifty (50) megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in paragraph (8)(B)1. of this rule and retest the site-specific NMOC concentration every five (5) years using the methods specified in this section.

4. Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of Appendix A, 40 CFR part 60 (incorporated by reference). The landfill owner or operator shall estimate the NMOC mass emission rate using equations in subparagraph (5)(A)1.A. or B. of this rule and using a site-specific methane generation rate constant k, and the site-specific NMOC concentration as determined in paragraph (5)(A)3. of this rule instead of the default values provided in paragraph (5)(A)1. of this rule. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of fifty (50) megagrams per year.

A. If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than fifty (50) megagrams per year, the owner or operator shall comply with paragraph (3)(B)2. of this rule.

B. If the NMOC mass emission rate is less than fifty (50) megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in paragraph (8)(B)1. of this rule and shall recalculate the NMOC mass emission rate annually, as provided in paragraph (8)(B)1. of this rule using the equations in paragraph (5)(A)1. of this rule and using the site-specific methane generation rate constant and NMOC concentration obtained in paragraph (5)(A)3. of this rule. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

5. The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in paragraphs (5)(A)3. and 4. of this rule if the method has been approved by the director.

6. The owner or operator may recalculate the NMOC mass emission rate using AP-42 values instead of the default values provided in paragraph (5)(A)1. of this rule as an alternative to the methods required in paragraph (5)(A)3. or 4. of this rule.

(B) After the installation of a collection and control system in compliance with section (6) of this rule, the owner or operator shall calculate the NMOC emission rate for

purposes of determining when the system can be removed as provided in subparagraph (3)(B)2.E. of this rule, using the following equation:

$$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC}$$

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year

Q_{LFG} = flow rate of landfill gas, cubic meters per minute

C_{NMOC} = NMOC concentration, parts per million by volume as hexane

1. The flow rate of landfill gas, Q_{LFG}, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E.

2. The average NMOC concentration, C_{NMOC}, shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent *Compilation of Air Pollutant Emission Factors* (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six (6) to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

3. The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the director as provided in part (3)(B)2.A.(II) of this rule.

(C) The owner or operator of each MSW landfill subject to the provisions of this rule shall estimate the NMOC emission rate for comparison to the prevention of significant deterioration (PSD) major source and significance levels in 40 CFR part 51.166 or 52.21 (incorporated by reference) using AP-42 or other approved measurement procedures. If a collection system, which complies with the provisions in paragraph (3)(B)2. of this rule is already installed, the owner or operator shall estimate the NMOC emission rate using the procedures provided in subsection (5)(B).

(D) For the performance test required in part (3)(B)2.C.(II) of this rule, Method 25C or Method 18 shall be used to determine compliance with ninety-eight (98) weight-percent efficiency or the twenty (20) ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the director as provided by part (3)(B)2.A.(II) of this rule. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent *Compilation of Air Pollutant Emission Factors* (AP-42). The following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = (NMOC_{in} - NMOC_{out})/(NMOC_{in})$$

where,

$NMOC_{in}$ = mass of NMOC entering control device

$NMOC_{out}$ = mass of NMOC exiting control device

(6) Compliance Provisions.

(A) Except as provided in part (3)(B)2.A.(II) of this rule, the specified methods in paragraphs (6)(A)1. through (6)(A)6. of this rule shall be used to determine whether the gas collection system is in compliance with subparagraph (3)(B)2.B. of this rule.

1. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with subpart (3)(B)2.B.(I)(a) of this rule, one (1) of the following equations shall be used. The k and L_o kinetic factors should be those published in the most recent *Compilation of Air Pollutant Emission Factors* (AP-42) or other site specific values demonstrated to be appropriate and approved by the director. If k has been determined as specified in paragraph (5)(A)4. of this rule, the value of k determined from the test shall be used. A value of no more than fifteen (15) years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

A. For sites with unknown year-to-year solid waste acceptance rate—

$$Q_m = 2L_o R (e^{-kc} - e^{-kt})$$

where,

Q_m = maximum expected gas generation flow rate, cubic meters per year

L_o = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, $year^{-1}$

t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years

c = time since closure, years (for an active landfill $c = 0$ and $e^{-kc} = 1$)

B. For sites with known year-to-year solid waste acceptance rate—

$$Q_m = \sum_{i=1}^{n} 2 k L_o M_i (e^{-kt_i})$$

where,

Q_m = maximum expected gas generation flow rate, cubic meters per year

k = methane generation rate constant, $year^{-1}$

L_o = methane generation potential, cubic meters per megagram solid waste

M_i = mass of solid waste in the i^{th} section, megagrams

t_i = age of the i^{th} section, years

C. If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in subparagraphs (6)(A)1.A. and B. of this rule. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in subparagraphs (6)(A)1.A. or B. of this rule or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

2. For the purposes of determining sufficient density of gas collectors for compliance with subpart (3)(B)2.B.(I)(b) of this rule, the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the director, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

3. For the purpose of demonstrating whether the gas collection system flow rate is

sufficient to determine compliance with subpart (3)(B)2.B.(I)(c) of this rule, the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within five (5) calendar days, except for the three (3) conditions allowed under subsection (4)(B) of this rule. If negative pressure cannot be achieved without excess air infiltration within fifteen (15) calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within one hundred twenty (120) days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the director for approval.

4. Owners or operators are not required to expand the system as required in paragraphs (6)(A)3. of this rule during the first one hundred eighty (180) days after gas collection system start-up.

5. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in subsection (4)(C) of this rule. If a well exceeds one (1) of these operating parameters, action shall be initiated to correct the exceedance within five (5) calendar days. If correction of the exceedance cannot be achieved within fifteen (15) calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within one hundred twenty (120) days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the director for approval.

6. An owner or operator seeking to demonstrate compliance with subpart (3)(B)2.B.(I)(d) of this rule through the use of a collection system not conforming to the specifications provided in section (10) of this rule shall provide information satisfactory to the director as specified in part (3)(B)2.A.(III) of this rule demonstrating that off-site migration is being controlled.

(B) For purposes of compliance with subsection (4)(A) of this rule, each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in subparagraph (3)(B)2.A. of this rule. Each well shall be installed no later than sixty (60) days of the date in which the initial solid waste has been in place for a period of—

1. Five (5) years or more if active; or

2. Two (2) years or more if closed or at final grade.

(C) The following procedures shall be used for compliance with the surface methane operational standard as provided in subsection (4)(D) of this rule:

1. After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at thirty (30)-meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in subsection (6)(D) of this rule;

2. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least thirty (30) meters from the perimeter wells;

3. Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of Appendix A, 40 CFR part 60 (incorporated by reference), except that the probe inlet shall be placed within five to ten centimeters (5–10 cm) of the ground. Monitoring shall be performed during typical meteorological conditions;

4. Any reading of five hundred (500) parts per million (ppm) or more above background at any location shall be recorded as a monitored exceedance and the actions specified in subparagraphs (6)(C)4.A. through E. of this rule shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of subsection (4)(D) of this rule.

A. The location of each monitored exceedance shall be marked and the location recorded.

B. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be remonitored within ten (10) calendar days of detecting the exceedance.

C. If the remonitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within ten (10) days of the second exceedance. If the remonitoring shows a third exceedance for the same location, the action specified in subparagraph (6)(C)4.E. of this rule shall be taken, and no further monitoring of that location is required until the action specified in subparagraph (6)(C)4.E. of this rule has been taken.

D. Any location that initially showed an exceedance but has a methane concentration less than five hundred (500) ppm methane above background at the ten (10)-day remonitoring specified in subparagraph (6)(C)4.B. or C. of this rule shall be remonitored one (1) month from the initial exceedance. If the one (1)-month remonitoring shows a concentration less than five hundred (500) ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the one (1)-month remonitoring shows an exceedance, the actions specified in subparagraph (6)(C)4.C. or E. of this rule shall be taken.

E. For any location where monitored methane concentration equals or exceeds five hundred (500) ppm above background three (3) times within a quarterly period, a new well or other collection device shall be installed within one hundred twenty (120) calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the director for approval; and

5. The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

(D) Each owner or operator seeking to comply with the provisions in subsection (6)(C) of this rule shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

1. The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21, except that "methane" shall replace all references to VOC;

2. The calibration gas shall be methane, diluted to a nominal concentration of five hundred (500) ppm in air;

3. To meet the performance evaluation requirements in section 3.1.3 of Method 21, the instrument evaluation procedures of section 4.4 of Method 21 shall be used; and

4. The calibration procedures provided in section 4.2 of Method 21 shall be followed immediately before commencing a surface monitoring survey.

(E) The provisions of this rule apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed five (5) days for collection systems and shall not exceed one (1) hour for treatment or control devices.

(7) Monitoring of Operations. Except as provided in part (3)(B)2.A.(II) of this rule—

(A) Each owner or operator seeking to comply with part (3)(B)2.B.(I) of this rule for an active gas collection system shall install a sampling port and a thermometer or other temperature measuring device, or an access port for temperature measurements at each wellhead and—

1. Measure the gauge pressure in the gas collection header on a monthly basis as provided in paragraph (6)(A)3. of this rule; and

2. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in paragraph (6)(A)5. of this rule; and

3. Monitor temperature of the landfill gas on a monthly basis as provided in paragraph (6)(A)5. of this rule;

(B) Each owner or operator seeking to comply with subparagraph (3)(B)2.C. of this rule using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment:

1. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of plus or minus one percent (±1%) of the temperature being measured expressed in degrees Celsius or plus or minus one-half degree Celsius (±0.5°C), whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity greater than forty-four (44) megawatts; and

2. A device that records flow to or bypass of the control device. The owner or operator shall either—

A. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every fifteen (15) minutes; or

B. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line;

(C) Each owner or operator seeking to comply with subparagraph (3)(B)2.C. of this rule using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

1. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame; and

2. A device that records flow to or bypass of the flare. The owner or operator shall either—

A. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every fifteen (15) minutes; or

B. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line;

(D) Each owner or operator seeking to demonstrate compliance with subparagraph (3)(B)2.C. of this rule using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the director as provided in part (3)(B)2.A.(II) of this rule describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The director shall review the information and either approve it, or request that additional information be submitted. The director may specify additional appropriate monitoring procedures to insure that human health and safety is protected;

(E) Each owner or operator seeking to install a collection system that does not meet the specifications in section (10) of this rule or seeking to monitor alternative parameters to those required by sections (4) through (7) of this rule shall provide information satisfactory to the director as provided in parts (3)(B)2.A.(II) and (III) of this rule describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The director may specify additional appropriate monitoring procedures to insure that human health and safety is protected; or

(F) Each owner or operator seeking to demonstrate compliance with subsection (6)(C) of this rule, shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in subsection (6)(D) of this rule. Any closed landfill that has no monitored exceedances of the operational standard in three (3) consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of five hundred (500) ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

(8) Reporting Requirements. Except as provided in part (3)(B)2.A.(II) of this rule—

(A) Each owner or operator subject to the requirements of this rule shall submit an initial design capacity report to the director.

1. The initial design capacity report shall be submitted within ninety (90) days of the rule effective date.

2. The initial design capacity report shall contain the following information:

A. A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the provisions of the state or local construction or operating permit; and

B. The maximum design capacity of the landfill. Where the maximum design capacity is specified in the state or local construction permit, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with such parameters as depth of solid waste, solid waste acceptance rate, and compaction practices as part of the report. The state, local agency, or director may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

3. An amended design capacity report shall be submitted to the director providing notification of any increase in the design capacity of the landfill, whether the increase results from an increase in the permitted area or depth of the landfill, a change in the operating procedures, or any other means which results in an increase in the maximum design capacity of the landfill above two and one-half (2.5) million megagrams and two and one-half (2.5) million cubic meters. The amended design capacity report shall be submitted within ninety (90) days of the issuance of an amended construction or operating permit, or the placement of waste in additional land, or the change in operating procedures which will result in an increase in maximum design capacity, whichever occurs first;

(B) Each owner or operator subject to the requirements of this rule shall submit an NMOC emission rate report to the director initially and annually thereafter, except as provided for in subparagraph (8)(B)3. of this rule. The director may request such additional information as may be necessary to verify the reported NMOC emission rate.

1. The NMOC emission rate report shall contain an annual or five (5)-year estimate of the NMOC emission rate calculated using the formula and procedures provided in subsection (5)(A) or (B) of this rule, as applicable.

A. The initial NMOC emission rate report shall be submitted within ninety (90) days of the rule reflective date and may be combined with the initial design capacity report required in subsection (8)(A) of this rule. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in subparagraph (8)(B)1.B. and paragraph (8)(B)3. of this rule.

B. If the estimated NMOC emission rate as reported in the annual report to the director is less than fifty (50) megagrams per year in each of the next five (5) consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next five (5)-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the five (5) years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the director. This estimate shall be revised at least once every five (5) years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five (5)-year estimate, a revised five (5)-year estimate shall be submitted to the director. The revised estimate shall cover the five (5)-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

2. The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or five (5)-year emissions.

3. Each owner or operator subject to the requirements of this rule is exempted from the requirements of paragraphs (8)(B)1. and 2. of this rule after the installation of a collection and control system in compliance with paragraph (3)(B)2. of this rule, during such time as the collection and control system is in operation and in compliance with sections (4) and (6) of this rule;

(C) Each owner or operator subject to the provisions of subparagraph (3)(B)2.A. of this rule shall submit a collection and control system design plan to the director within one (1) year of the first report, required under subsection (8)(B) of this rule, in which the emission rate exceeds fifty (50) megagrams per year, except as follows:

1. If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in paragraph (5)(A)3. of this rule and the resulting rate is less than fifty (50) megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than fifty (50) megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within one hundred eighty (180) days of the first calculated exceedance of fifty (50) megagrams per year; and

2. If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in paragraph (5)(A)4. of this rule, and the resulting NMOC emission rate is less than fifty (50) Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of paragraph (5)(A)4. of this rule and the resulting site-specific methane generation rate constant (k) shall be submitted to the director within one (1) year of the first calculated emission rate exceeding fifty (50) megagrams per year;

(D) Each owner or operator of a controlled landfill shall submit a closure report to the director within thirty (30) days of waste acceptance cessation. The director may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR part 258.60 (incorporated by reference). If a closure report has been submitted to the director, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR part 60.7(a)(4) (incorporated by reference);

(E) Each owner or operator of a controlled landfill shall submit an equipment removal report to the director thirty (30) days prior to removal or cessation of operation of the control equipment.

1. The equipment removal report shall contain all of the following items:

A. A copy of the closure report submitted in accordance with subsection (8)(D) of this rule;

B. A copy of the initial performance test report demonstrating that the fifteen (15)-year minimum control period has expired; and

C. Dated copies of three (3) successive NMOC emission rate reports demonstrating that the landfill is no longer producing fifty (50) megagrams or greater of NMOC per year.

2. The director may request such additional information as may be necessary to verify that all of the conditions for removal in subparagraph (3)(B)2.E. of this rule have been met;

(F) Each owner or operator of a landfill seeking to comply with paragraph (3)(B)2. of this rule using an active collection system designed in accordance with subparagraph (3)(B)2.B. of this rule shall submit to the director annual reports of the recorded information in paragraphs (8)(F)1. through 6. of this rule. The initial annual report shall be submitted within one hundred eighty (180) days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR part 60.8 (incorporated by reference). For enclosed combustion devices and flares, reportable exceedances are defined under subsection (9)(C) of this rule.

1. Value and length of time for exceedance of applicable parameters monitored under subsections (7)(A), (B), (C), and (D) of this rule.

2. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under section (7) of this rule.

3. Description and duration of all periods when the control device was not operating for a period exceeding one (1) hour and length of time the control device was not operating.

4. All periods when the collection system was not operating in excess of five (5) days.

5. The location of each exceedance of the five hundred (500) ppm methane concentration as provided in subsection (4)(D) of this rule and the concentration recorded at each location for which an exceedance was recorded in the previous month.

6. The date of installation and the location of each well or collection system expansion added pursuant to paragraph (6)(A)3., subsection (6)(B), and paragraph (6)(C)4. of this rule; and

(G) Each owner or operator seeking to comply with subparagraph (3)(B)2.A. of this rule shall include the following information with the initial performance test report required under 40 CFR part 60.8 (incorporated by reference):

1. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;

2. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;

3. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;

4. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area;

5. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

6. The provisions for the control of off-site migration.

(9) Record Keeping Requirements. Except as provided in part (3)(B)2.A.(II) of this rule—

(A) Each owner or operator of an MSW landfill subject to the provisions of subsection (3)(B) of this rule shall keep for at least five (5) years up-to-date, readily accessible, on-site records of the design capacity report which triggered subsection (3)(B) of this rule, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Records may be maintained off-site if they are retrievable within four (4) hours. A longer period is acceptable if records are needed for an unresolved enforcement action. Either paper copy or electronic formats are acceptable;

(B) Each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (9)(B)1. through 4. of this rule as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of five (5) years. Records of the control device vendor specifications shall be maintained until removal.

1. Where an owner or operator subject to the provisions of this rule seeks to demonstrate compliance with subparagraph (3)(B)2.B. of this rule—

A. The maximum expected gas generation flow rate as calculated in paragraph (6)(A)1. of this rule. The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the director; and

B. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in paragraph (10)(A)1. of this rule.

2. Where an owner or operator subject to the provisions of this rule seeks to demonstrate compliance with subparagraph (3)(B)2.C. of this rule through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than forty-four (44) megawatts—

A. The average combustion temperature measured at least every fifteen (15) minutes and averaged over the same time period of the performance test; and

B. The percent reduction of NMOC determined as specified in part (3)(B)2.C.(II) of this rule achieved by the control device.

3. Where an owner or operator subject to the provisions of this rule seeks to demonstrate compliance with subpart (3)(B)2.C.(II)(a) of this rule through use of a boiler or process heater of any size—a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

4. Where an owner or operator subject to the provisions of this rule seeks to demonstrate compliance with part (3)(B)2.C.(I) of this rule through use of an open flare, the flare type (that is, steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR part 60.18 (incorporated by reference); continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent;

(C) Each owner or operator of a controlled landfill subject to the provisions of this rule shall keep for five (5) years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in section (7) of this rule as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

1. The following constitute exceedances that shall be recorded and reported under subsection (8)(F) of this rule:

A. For enclosed combustors except for boilers and process heaters with design heat input capacity of forty-four (44) megawatts (150 million British thermal units per hour) or greater, all three (3)-hour periods of operation during which the average combustion temperature was more than twenty-eight degrees Celsius (28°C) below the average combustion temperature during the most recent performance test at which compliance with subparagraph (3)(B)2.C. of this rule was determined; and

B. For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under subparagraph (9)(B)3.A. of this rule.

2. Each owner or operator subject to the provisions of this rule shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under section (7) of this rule.

3. Each owner or operator subject to the provisions of this rule who uses a boiler or process heater with a design heat input capacity of forty-four (44) megawatts or greater to comply with subparagraph (3)(B)2.C. of this rule shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other state or local regulatory requirements.)

4. Each owner or operator seeking to comply with the provisions of this rule by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under subsection (7)(C) of this rule, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent;

(D) Each owner or operator subject to the provisions of this rule shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

1. Each owner or operator subject to the provisions of this rule shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under subsection (6)(B) of this rule.

2. Each owner or operator subject to the provisions of this rule shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in subparagraph (10)(A)3.A. of this rule as well as

any nonproductive areas excluded from collection as provided in subparagraph (10)(A)3.B. of this rule;

(E) Each owner or operator subject to the provisions of this rule shall keep for at least five (5) years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in section (4) of this rule, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance; and

(F) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than two and one-half (2.5) million megagrams or two and one-half (2.5) million cubic meters, as provided in the definition of design capacity, shall keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within four (4) hours of request. Either paper copy or electronic formats are acceptable.

(10) Specifications for Active Collection Systems.

(A) Each owner or operator seeking to comply with subparagraph (3)(B)2.A. of this rule shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the director as provided in parts (3)(B)2.A.(III) and (IV) of this rule:

1. The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat;

2. The sufficient density of gas collection devices determined in paragraph (10)(A)1. of this rule shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior; and

3. The placement of gas collection devices determined in paragraph (10)(A)1. of this rule shall control all gas producing areas, except as provided by subparagraphs (10)(A)3.A. and B. of this rule.

A. Any segregated area of asbestos or nondegradable material may be excluded from collection if documentation is provided as specified under subsection (9)(D). of this rule. The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the director upon request.

B. Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than one percent (1%) of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the director upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

$$Q_i = 2\ k\ L_o\ M_i\ (e^{-kt_i})\ (C_{NMOC})\ (3.6 \times 10^{-9})$$

where,

Q_i = NMOC emission rate from the i^{th} section, megagrams per year

k = methane generation rate constant, $year^{-1}$

L_o = methane generation potential, cubic meters per megagram solid waste

M_i = mass of the degradable solid waste in the i^{th} section, megagram

t_i = age of the solid waste in the i^{th} section, years

C_{NMOC} = concentration of nonmethane organic compounds, parts per million by volume

3.6×10^{-9} = conversion factor

The values for k, and C_{NMOC} determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, L_o and C_{NMOC} provided in paragraph (5)(A)1. of this rule or the alternative values from (5)(A)5. of this rule shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in subparagraph (10)(A)3.A. of this rule.

(B) Each owner or operator seeking to comply with part (3)(B)2.A.(I) of this rule shall construct the gas collection devices using the following equipment or procedures:

1. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to—convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards established in this rule. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration;

2. Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations; and

3. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one (1) sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(C) Each owner or operator seeking to comply with part (3)(B)2.A.(I) of this rule shall convey the landfill gas to a control system in compliance with subparagraph (3)(B)2.C. of this rule through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

1. For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (10)(C)2. of this rule shall be used; and

2. For new collection systems, the maximum flow rate shall be in accordance with paragraph (6)(A)1. of this rule.

AUTHORITY: section 643.050, RSMo Supp. 1998. Original rule filed Jan. 14, 1997, effective Sept. 30, 1997. Amended: Filed Oct. 7, 1999, effective July 30, 2000.*

**Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995.*

10 CSR 10-6.320 Sales Tax Exemption

PURPOSE: This rule sets forth the criteria used by the Missouri Air Conservation Commission to determine eligibility for sales tax exemption for items purchased or leased for the purpose of preventing, abating or monitoring air pollution in accordance with section 144.030.2(14), RSMo.

(1) Applicability.

(A) Machinery, equipment, appliances and devices purchased or leased and used solely for the purpose of preventing, abating or monitoring air pollution, and materials and supplies solely required for the installation, construction or reconstruction of such machinery, equipment, appliances and devices shall be eligible for sales tax exemption if so certified by the director.

(B) The applicant shall only request sales tax exemption for those machinery, equipment, appliances and devices for which sales tax would be charged.

(C) Eligible applicants who are persons engaged in air pollution control in Missouri may apply for sales tax exemption providing they are not applying for any other sales tax exemption under a different program for the same machinery, equipment, appliances and devices.

(D) Sales Tax Exemption Criteria.

1. The following criteria shall be used to evaluate sales tax exemption requests except motor vehicle parts:

A. The machinery, equipment, appliance and device removes or captures air pollutants from a system or process, or it monitors the levels of the pollutant; and its function within the system or process is limited to removing, capturing, or monitoring air pollution;

B. The machinery, equipment, appliance and device is a portion or all of a system or process pretreating air prior to its discharge into the atmosphere; and

C. Materials and supplies if they are required for the installation, construction or reconstruction of items in subparagraph (3)(B)1.A. and will not be used for other functions.

2. The following motor vehicle parts that are air pollution control devices and/or appliances that are eligible sales tax exempt are:

A. Air injection parts;

B. Air pump check valve;

C. Catalytic converters (universal converters, direct fit converters, converter kits);

D. Exhaust gas recirculation (EGR) valves;

E. Evaporative canister and canister purge valve;

F. Positive crankcase ventilation (PCV) valves; and

G. Smog pumps.

3. The sales tax exemption does not apply to pollution control devices on existing motor vehicles when purchased new or used. This exemption is for the purchase of replacement parts for a motor vehicle.

4. The director may review new technology not listed above related to motor vehicle parts used to control air pollution for possible exemption.

(2) Definitions.

(A) Air pollution—The presence in the ambient air of one (1) or more air contaminants in quantities, or characteristics and of a duration which directly and proximately cause or contribute to injury to human, plant or animal life or health, or to property or which unreasonably interferes with the enjoyment of life or use of property.

(B) Definitions of certain terms specified in this rule, other than those defined in this rule section, may be found in 10 CSR 10-6.020.

(3) General Provisions. This section sets forth the processes used by the Missouri Department of Natural Resources to evaluate sales/use tax exemption applications for items purchased or leased for the purpose of air pollution control. Application processes are as follows:

(A) Applications for sales tax exemption (other than for motor vehicle parts)—

1. Machinery, equipment, appliances, and devices purchased or leased and used solely for the purpose of preventing, abating, or monitoring air pollution, and materials and supplies solely required for the installation, construction, or reconstruction of such machinery, equipment, appliances, and devices as provided by this rule shall be submitted on the application form(s) provided by the Missouri Department of Natural Resources. The application shall be submitted to the Missouri Department of Natural Resources, Air Pollution Control Program, PO Box 176, Jefferson City, MO 65102.

2. The department will review the application and approve, partially approve, or deny the sales tax exemption request. If approved or partially approved, the department will notify the Missouri Department of Revenue which will forward a Missouri Sales/Use Tax Exemption Certificate for Pollution Control to the applicant. If the application is denied, the department shall send a written registered letter to the applicant. Applicants who are denied a certification shall have a period of thirty (30) days from the issuance of the notice of denial to appeal such denial to the Missouri Air Conservation Commission, PO Box 176, Jefferson City, MO 65102-0176.

3. There is a three (3)-year time limit from the date of the purchase or the lease to file an application for a sales tax refund with the Missouri Department of Revenue. The filing of a request for an exemption certificate does not constitute an application for a refund. See Department of Revenue regulations for the refund procedure.

(B) Sales tax exemption for motor vehicle parts—All motor vehicle parts listed in paragraph (1)(D)2. are exempt from sales tax by statute as appliances and devices purchased or leased and used solely for the purpose of preventing, abating or monitoring air pollution. Therefore, a sales/use tax exemption application is not necessary for these items.

(4) Reporting and Record Keeping.

(A) Other than motor vehicle parts—The seller shall retain the completed Sales/Use Tax Exemption Certificate for Pollution Control for five (5) years for audit purposes.

(B) Motor vehicle parts listed in paragraph (1)(D)2.—The seller shall retain detailed documentation supporting the tax exempt sale of motor vehicle parts listed in paragraph (1)(D)2. Such documentation shall include, but not be limited to, sales invoices and other such records clearly identifying each item sold exempt from tax. The seller shall retain these records for five (5) years for audit purposes.

(5) Test Methods (*Not Applicable*).

AUTHORITY: section 643.050, RSMo 2000. Original rule filed Dec. 13, 1996, effective July 30, 1997. Amended: Filed May 24, 2002, effective March 30, 2003.*

**Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995*

10 CSR 10-6.330 Restriction of Emissions From Batch-Type Charcoal Kilns

PURPOSE: This regulation establishes emission limits for batch-type charcoal kilns based on operational parameters that reflect the Best Available Control Technology (BACT) for this industry as of August 20, 1997.

(1) Applicability.

(A) This regulation applies to all batch-type charcoal kilns throughout the entire state of Missouri.

(B) In the event that other rules in the *Code of State Regulations* are also applicable to batch-type charcoal kilns, the more stringent rule requirement shall apply.

(2) Definitions.

(A) "Batch-type charcoal kiln"—Charcoal kilns that manufacture charcoal with a batch process rather than a continuous process. The batch-type charcoal kiln process typically includes loading wood, sealing the kiln, igniting the wood and controlled burning of the wood to produce charcoal which is unloaded.

(B) "Burn cycle"—The burn cycle for a charcoal kiln begins at the time that a batch of wood is initially lit and ends when the burn for that batch is completed and the kiln is sealed. The burn cycle does not include cool down time.

(C) "Charcoal kiln"—Any closed structure used to produce charcoal by controlled burning (pyrolysis) of wood. Retorts and furnaces used for charcoal production are not charcoal kilns.

(D) "Charcoal kiln control system"—A combination of an emission control device and connected charcoal kiln(s).

(E) "Emission control device"—Any device used to reduce contaminant emissions into the air. Thermal oxidizers or afterburners are often used on charcoal kilns for burning exhaust gases to reduce particulate matter, carbon monoxide and volatile organic compound emissions.

(F) "Fill capacity"—The maximum amount of wood that can be properly loaded into a charcoal kiln prior to the burn cycle.

(G) "Opacity"—The extent to which airborne material obstructs the transmission of incident light and obscures the visual background. Opacity is stated as a percentage of light obstructed and can be measured by a continuous opacity monitoring system or a trained observer. An opacity of one hundred percent (100%) represents a condition in which no light is transmitted and the background is completely obscured.

(H) "Particulate matter"—Particulate matter emissions from charcoal kilns and charcoal kiln control systems shall consist of all particulate matter including condensibles.

(I) "Residence time"—Period of time in which gas in a thermal oxidizer, incinerator or afterburner is exposed to heat and oxygen at a specified temperature in order to destroy pollutants present in the gas.

(J) "Treated wood"—Wood that has been subjected to a chemical process or application.

(K) Definitions of certain terms specified in this rule, other than those specified in this rule section, may be found in 10 CSR 10-6.020.

(3) General Provisions.

(A) Restriction of Emissions.

1. No charcoal kiln control system shall emit visible emissions greater than ten percent (10%) opacity.

2. No charcoal kiln control system shall emit more than the following emissions:

A. 1.5 pounds per hour of particulate matter;

B. Either 0.24 pounds per hour volatile organic compounds (VOCs) or the emission rate equivalent to ninety-nine percent (99%) VOC control efficiency, whichever results in a lower emission rate; and

C. 1.75 pounds per hour of carbon monoxide (CO).

3. Charcoal kiln control systems shall be maintained to assure that no visible fugitive emissions result from equipment cracks or door seals.

4. Fugitive dust from other operations at charcoal manufacturing installations (such as charcoal handling, vehicle haul roads, crushing, screening, etc.) shall comply with the requirements of 10 CSR 10-6.170 Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin.

(B) Operating Requirements.

1. No charcoal kiln shall be operated without an emission control device installed and operated to meet the requirements of this rule and other applicable state and federal rules.

$$\frac{HI_p \times ER_p}{2000} = NO_xAL_p$$

2. Each emission control device shall have a sight glass installed in the burning chamber such that the burn can be visually monitored.

3. All charcoal kiln emissions shall be ducted to an operating emission control device throughout the entire burn cycle.

4. Emission control devices shall be equipped with automatic temperature control systems which are set such that gas streams are heated and maintained at a nominal operating temperature of sixteen hundred degrees Fahrenheit (1600°F), with a fifteen hundred twenty degree Fahrenheit (1520°F) minimum temperature allowed, for a minimum residence time of 1.7 seconds.

5. All charcoal kiln control systems shall be operated using the same fuel(s) as used during performance testing.

6. No charcoal kiln shall burn treated wood at any time.

7. Rule 10 CSR 10-6.050 Startup, Shutdown and Malfunction Conditions shall only be applicable to charcoal kiln control systems with regard to the malfunction provision, and not with regard to start-up and shutdown.

$$\frac{HI_a \times ER_r}{2000} = NO_xAL_a$$

8. All charcoal kiln control systems shall be operated and maintained in accordance with the department approved standard operating procedures manual described in subsection (3)(D) of this rule and the department approved maintenance practices manual described in subsection (3)(E) of this rule.

9. All charcoal kiln control systems that have been performance tested shall continuously display and record the emission control device operating temperature with the permanently installed temperature recording device at all times of operation.

(C) Each charcoal kiln shall have a unique identification number permanently affixed to the exterior of the charcoal kiln structure.

(D) The owner or operator of charcoal kilns at charcoal manufacturing installations shall develop, submit for department approval and establish a standard operating procedures manual for each charcoal manufacturing installation. At a minimum, this manual shall describe—

1. Safe charcoal kiln operation;

2. Bundle stacking (including adequate platform of logs to enhance combustion);

3. Use of properly seasoned wood (cover mixing of wood species, if applicable);

4. Control of fugitive emissions from each charcoal kiln (e.g. "mudding" cracks and doors) and each emission control device; and

5. Methods of reporting and recordkeeping required by section (4) of this rule.

(E) The owner or operator of charcoal kilns shall develop, submit for department approval and establish a maintenance practices manual for each charcoal kiln control system. This manual shall be maintained at

each site for the specific emission control device(s) installed at the site. At a minimum, this manual shall include:

1. Maintenance of all equipment (e.g. proper cleaning of inlet ports);

2. Measures taken in the event of emission control device failure to minimize emissions (e.g. opening kiln caps and air vents to allow kiln wood to burn down to minimize smoking conditions or shutting all kiln inlets and outlets until all combustion in the chamber is extinguished);

3. Inspections performed and frequency (e.g. daily burner operation); and

4. Methods of reporting and recordkeeping required by section (4) of this rule.

(F) Performance Testing and Compliance Determinations.

1. For compliance determination, each charcoal kiln control system shall be evaluated as a unit and performance tested for compliance with the emission limit requirements of paragraphs (3)(A)1. and 2. of this rule.

2. All charcoal kiln control system performance tests shall be conducted with each charcoal kiln of the system filled to at least ninety percent (90%) of fill capacity and at the midpoint of burn cycle unless otherwise noted. The midpoint of each charcoal kiln burn cycle shall be no less than forty percent (40%), and no more than sixty percent (60%) of the total burn cycle.

3. Emission control device fuel type(s) and quantity(ies) used during the performance test shall be recorded.

4. All performance test operating temperatures shall be recorded with a continuous recording device that is permanently installed and the temperature shall be continuously displayed and recorded throughout the entire performance test.

5. Each performance test shall consist of a minimum of three (3) runs for each pollutant specified in paragraph (3)(A)2. of this rule and shall be conducted using the test methods specified in section (5) of this rule. Each test run duration shall be one (1) hour unless the test method requires a longer duration. Compliance shall not be considered demonstrated until the department has validated performance test results.

6. Compliance determinations for visible fugitive emission requirements of this rule shall use the test method specified in subsection (5)(E) of this rule.

7. The director may allow similar charcoal kiln control system units to operate without the individual performance tests required by paragraph (3)(F)1. if the following conditions are met:

A. Similar units have the same number of charcoal kilns, the same construction, capacities within ten percent (10%) of each other and the same design;

B. Similar units are controlled by emission control devices with the same construction, the same size and the same design; and

C. Three (3) separate similar units have successfully demonstrated compliance with the emission limit requirements of paragraphs (3)(A)1. and 2. of this rule.

8. The director may allow a specific charcoal kiln control system to operate at a temperature lower than the paragraph (3)(B)4. temperature requirement of this rule if the owner or operator successfully demonstrates by performance test that the following conditions are met:

A. All emission limit requirements of paragraphs (3)(A)1. and 2. of this rule are met; and

B. The CO control efficiency is greater than or equal to ninety-nine percent (99%).

9. Control efficiency shall be calculated from performance test data using the following calculation:

$$CE = \left(1 - \frac{\text{Outlet Emission Rate}}{\text{Inlet Emission Rate}} \right) \times 100$$

10. The owner or operator of a charcoal kiln shall be allowed a period of one hundred eighty (180) days from the first time combustion occurs in the emission control device to get the charcoal kiln control system operating in compliance with this rule. Combustion in the emission control device of a charcoal kiln shall occur no later than December 31 of the applicable compliance year established in subsection (3)(G) of this rule. During this one hundred eighty (180)-day period, deviations from the emission limit and operating requirements of this rule shall not be considered violations subject to enforcement.

11. If any existing emission control device installed or fabricated prior to the effective date of this rule does not meet the requirements of this rule, the emission control device will be modified or replaced such that requirements of this rule are met no later than eighteen (18) months after the effective date of this rule. Accelerated time constraints established by the Environmental Protection Agency (EPA) Final Consolidated Consent Agreement and Consent Order dated September 30, 1997, take precedence over this requirement.

12. Any owner or operator may shut down existing charcoal kilns reported as active rather than installing required emission control devices. If the owner or operator subsequently decides to reactives charcoal kilns, the charcoal manufacturing installation must have required emission control devices in operation on those kilns, prior to activation and the owner or operator must notify the department at least thirty (30) days prior to reactivation.

13. Charcoal kilns that were not reported as active, cannot be reactivated without required emission control devices installed. Any emission control device installed per subsection (3)(F) of this rule does not count towards the schedule for emission control devices in subsection (3)(G) of this rule.

14. Any existing charcoal kiln that has been inactive for sixty (60) months or longer shall comply with all federal and state rules, and obtain a construction permit prior to reactivation.

(G) Compliance Schedule.

1. For each charcoal manufacturing installation owned or operated, each owner or operator shall install an emission control device to meet the requirements of this rule on a minimum of two (2) active charcoal kilns by December 31, 1998. Accelerated compliance schedules established by the Environmental Protection Agency (EPA) Final Consolidated Consent Agreement and Consent Order dated September 30, 1997, take precedence over this requirement.

2. After December 31, 1998, each owner or operator shall install an emission control device to meet the requirements of this rule on remaining active charcoal kilns at the rate of a minimum of two (2) charcoal kilns per charcoal manufacturing installation per calendar year by December 31 of each year. All emission control devices must be installed no later than December 31, 2005. Accelerated compliance schedules established by the Environmental Protection Agency (EPA) Final Consolidated Consent Agreement and Consent Order dated September 30, 1997, take precedence over this requirement. An owner or operator can install emission control devices early without accelerating the schedule for installation of control devices contained in this paragraph.

3. The standard operating procedures manual and maintenance practices manual described in subsection (3)(D) and (3)(E) of this rule shall be developed and submitted to the department for approval no later than December 31, 1998.

4. All new charcoal kilns shall comply with all federal and state rules and obtain all necessary permits prior to operation.

(4) Reporting and Record Keeping.

(A) Owners or operators of all charcoal kilns shall maintain a file on each active charcoal kiln with the following information for a minimum of five (5) years from the date the data was collected:

1. Average annual production (tons of charcoal per charcoal manufacturing installation per year divided by the number of charcoal kilns at the charcoal manufacturing installation);

2. Start-up time (hour and minute) for each burn cycle;

3. Emission control device temperature (in degrees Fahrenheit) throughout each burn cycle shall be measured at a point in the emission control device where gas residence time is no less than 1.7 seconds;

4. The emission control device temperature shall be continuously displayed and recorded by a continuous recording device. (For twelve months after the effective date of this rule, manual recording of the emission control device temperature every fifteen (15) minutes shall be allowed for charcoal kiln control systems that are not performance tested);

5. Daily log for each charcoal kiln control system that includes start-up time(s), cool-down time(s), re-light time(s) and inspections performed (e.g. burn chamber);

6. Monthly log for each charcoal kiln control system that includes fuel usage and, where more than one (1) type of fuel is used, fuel types and times of usage;

7. Malfunction log for each charcoal manufacturing installation that includes a description of each malfunction cause, duration and actions taken to remedy the malfunction; and

8. Performance test reports for all emission control devices tested.

(B) No later than thirty (30) days after the effective date of this rule, owners or operators of all charcoal kilns shall provide the department with a list of the identification numbers of active charcoal kilns at each location at the time this rule becomes effective. If the active status of any charcoal kiln changes, including the construction of new charcoal kilns, the owner or operator shall provide an updated list to the department no later than thirty (30) days after the status change.

(C) All information maintained in the charcoal kiln file shall be made immediately available to Missouri Department of Natural Resources representatives upon request.

(5) Test Methods.

(A) Particulate matter emission level testing shall include condensibles and use the following methods:

1. 10 CSR 10-6.030(1), Reference Method 1—Sample and Velocity Traverses for Stationary Sources;

2. 10 CSR 10-6.030(2), Reference Method 2—Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube);

3. 10 CSR 10-6.030(3), Reference Method 3—Gas Analysis for Carbon Dioxide, Excess Air and Dry Molecular Weight;

4. 10 CSR 10-6.030(4), Reference Method 4—Determination of Moisture in Gases;

5. 10 CSR 10-6.030(5)(A), Reference Method 5—Determination of Particulate Emissions from Stationary Sources; and

6. 40 CFR part 51, Appendix M—Recommended Test Methods For State Implementation Plans, *Method 202—Determination of Condensible Particulate Emissions from Stationary Sources*.

(B) VOC emission level testing shall use one (1) of the following methods as specified by 40 CFR part 60, Appendix A—Reference Methods:

1. *Method 18—Measurement of Gaseous Organic Compound Emissions by Gas Chromatography*; or

2. *Method 25A—Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer*.

(C) CO emission level testing shall use 10 CSR 10-6.030(10), Reference Method 10—Determination of Carbon Monoxide Emissions from Stationary Sources.

(D) Emissions percent opacity testing shall use 10 CSR 10-6.030(9), Reference Method 9—Visual Determination of the Opacity of Emissions from Stationary Sources.

(E) Visible fugitive emissions testing shall use *Method 22—Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares* as specified by 40 CFR part 60, Appendix A—Reference Methods.

AUTHORITY: sections 643.030, 643.075 and 643.078, RSMo 1994 and 643.050, RSMo Supp. 1997. Original rule filed Nov. 25, 1997, effective July 30, 1998.*

**Original authority: 643.030, RSMo 1965, amended 1972, 1992, 1993; 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995; 643.075, RSMo 1972, amended 1988, 1992; and 643.078, RSMo 1992.*

10 CSR 10-6.350 Emission Limitation and Emissions Trading of Oxides of Nitrogen

PURPOSE: The purpose of this rule is to reduce the emissions of nitrogen oxides (NO_x) and establish a NO_x emissions trading program for the state of Missouri. The reductions in NO_x emissions will reduce the transport of ozone and its precursors within the state of Missouri and to other states as required under the Clean Air Act.

(1) Applicability.

(A) This rule applies to any fossil fuel-fired electric generating unit that serves a generator with a nameplate capacity of greater than twenty-five megawatts (25MW).

(B) Exemptions.

1. Any unit under subsection (1)(A) of this rule which demonstrates, using the emission estimation methods outlined in paragraph (5)(E)1. of this rule, that the unit's mass NO_x emissions are twenty-five (25) tons or less during the control period is exempt from the requirements of this rule.

2. The provisions of section (3) of this rule shall not apply to any emergency standby generators, internal combustion engines and peaking combustion turbine units demonstrated to operate less than four hundred (400) hours per control period averaged over the three (3) most recent years of operation, which have installed and maintained in proper operation a nonresettable engine hour meter.

(C) Loss of Exemption. If the exemption limit in paragraph (1)(B)1. or (1)(B)2. of this rule is exceeded, the exemption shall not apply and the owner or operator must notify the staff director or designee within thirty (30) days. If the owner or operator can demonstrate to the staff director or designee that the exemption limit was exceeded due to emergency operations or uncontrollable circumstances, the exemption in paragraph (1)(B)1. or (1)(B)2. of this rule shall apply.

(D) Compliance with this rule shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the Air Conservation Law and rules or any other requirements under local, state or federal law. Specifically, compliance with this rule shall not violate the permit conditions previously established under 10 CSR 10-6.060 or 10 CSR 10-6.065.

(2) Definitions.

(A) Definitions of certain terms in this rule, other than those specified in this rule section, may be found in 10 CSR 10-6.020.

(B) Account certificate of representation—The completed and signed submission for certifying the designation of a NO_x authorized account representative for an affected unit or a group of identified affected units who is authorized to represent the owners or operators of such unit or units and of the affected units at such source or sources with regard to matters under the NO_x trading program.

(C) Account number—The identification number given to each NO_x trading program account.

(D) Automated data acquisition and handling system—That component of the Continuous Emissions Monitoring System, or other emissions monitoring system approved for use by the department, designed to interpret and convert individual output signals from pollutant concentration monitors, and other component parts of the monitoring system to produce a continuous record of the measured parameters in the measurement units required in this rule.

(E) Average emission rate—The simple average of the hourly NO_x emission rate as recorded by monitoring systems approved in section (5) of this rule.

(F) Boiler—An enclosed fossil or other fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium.

(G) Combined cycle system—A system comprised of one or more combustion turbines, heat recovery steam generators, and steam turbines configured to improve overall efficiency of electricity generation or steam production.

(H) Combustion turbine—An enclosed fossil or other fuel-fired device that is comprised of a compressor, a combustor, and a turbine, and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine.

(I) Common stack—A single flue through which emissions from two or more NO_x units are exhausted.

(J) Compliance account—A NO_x allowance tracking system account, established for an affected unit, in which the NO_x allowance allocations for the unit are initially recorded and in which are held NO_x allowances available for use by the unit for a control period for the purpose of meeting the unit's NO_x emission limitation.

(K) Continuous emissions monitoring system (CEMS)—The equipment required by this rule to sample, analyze, measure, and provide, by readings taken at least once every fifteen (15) minutes of the measured parameters, a permanent record of NO_x emissions, expressed in tons per hour for NO_x.

(L) Control period—The period beginning May 1 of a calendar year and ending on September 30 of the same calendar year.

(M) Cyclone EGU—An electric generating unit (EGU) with a fossil fuel-fired boiler consisting of one or more horizontal cylindrical barrels that utilize tangentially applied air to produce a swirling combustion pattern of coal and air.

(N) Early reduction credit (ERC)—NO_x emission reductions in the years 2000, 2001, 2002 and 2003 that are below the limits specificied in subsection (3)(A) of this rule. ERCs will only be available for use during the years of 2004 and 2005. When calculating ERCs or performing calculations involving ERCs, ERCs shall always be rounded down to the nearest ton.

(O) Electric generating unit (EGU)—Any fossil fuel-fired boiler or turbine that serves an electrical generator with the potential to use more than fifty percent (50%) of the usable energy from the boiler or turbine to generate electricity.

(P) Emergency standby generator—A generator operated only during times of loss of primary power at the facility that is beyond the control of the owner or operator of the facility or during routine maintenance.

(Q) Fossil fuel—Natural gas, petroleum, coal, or any form of solid, liquid or gaseous fuel derived from such material.

(R) Fossil fuel-fired—With regard to a unit, the combustion of fossil fuel, alone or in combination with any other fuel, where fossil fuel is projected to comprise more than fifty percent (50%) of the annual heat input.

(S) Generator—A device that produces electricity.

(T) Heat input—The product (expressed as million British thermal units per hour) of the gross calorific value of the fuel (expressed as British thermal units per pound) and the fuel feed rate into a combustion device (expressed as pounds per hour), as measured, recorded and reported to the department by the NO_x authorized account representative and as determined by the director in accordance with this rule and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources.

(U) Nameplate capacity—The maximum electrical generating output (expressed as megawatt) that a generator can sustain over a specified period of time when not restricted by seasonal or other deratings, as listed in the National Allowance Data Base (NADB) under the data field "NAMECAP" if the generator is listed in the NADB or as measured in accordance with the United States Department of Energy standards. For generators not listed in the NADB, the nameplate capacity shall be used.

(V) NO_x allowance—An authorization by the department under the NO_x trading program to emit one (1) ton of NO_x during the control period of the specified year or of any year thereafter.

(W) NO_x allowance tracking system—The system by which the director records allocations, deductions and transfers of NO_x allowances under the NO_x trading program.

(X) NO_x allowance transfer deadline—Close of business on December 31 following the control period or, if December 31 is not a business day, close of business on the first business day thereafter and is the deadline by which NO_x allowances may be submitted for recording in an affected unit's compliance account, or the overdraft account of the installation where the unit is located.

(Y) NO_x authorized account representative—The person who is authorized by the owners or operators of the unit to represent and legally bind each owner and operator in matters pertaining to the NO_x trading program.

(Z) NO_x emissions limitation—For an affected unit, the tonnage equivalent of the NO_x emissions rate available for compliance deduction for the unit and for a control period adjusted by any deductions of such NO_x allowances to account for actual utilization for the control period or to an account for excess emissions for a prior control period or to account for withdrawal from the NO_x trading program or for a change in regulatory status for an affected unit.

(AA) NO_x emission rate—The amount of NO_x emitted by a combustion unit in pounds per million British thermal units of heat input as recorded by monitoring devices approved in section (5) of this rule.

(BB) NO_x opt-in unit—An EGU whose owner or operator has requested to become an affected unit under the NO_x trading program and has been approved by the department.

(CC) NO_x unit—Any fossil fuel-fired stationary boiler, combustion turbine, internal combustion engine or combined cycle system.

(DD) Opt-in—To voluntarily become an affected unit under the NO_x trading program.

(EE) Overdraft account—The NO_x allowance tracking system account established by the director for each NO_x authorized account representative.

(FF) Passenger tire equivalent (PTE)—The weight of waste tires or parts of waste tires equivalent to the average weight of one (1) passenger tire. The average weight of one (1) passenger tire is equal to twenty (20) pounds.

(GG) Peaking combustion unit—A combustion turbine normally reserved for operation during the hours of highest daily, weekly, or seasonal loads.

(HH) Serial number—When referring to NO_x allowances, the unique identification number assigned to each NO_x allowance.

(II) Tire-derived fuel—The end product of a process that converts whole scrap tires into a specific chipped form capable of being used as fuel.

(JJ) Unit load—The total output of a unit in any control period produced by combusting a given heat input of fuel expressed in terms of the total electrical generation (expressed as megawatt) produced by the unit including generation for use within the plant, and/or in the case of a unit that uses heat input for purposes other than electrical generation, the total steam flow (lb/hr) produced by the unit, including steam for use by the unit.

(KK) Unit operating day—A calendar day in which a unit combusts any fuel.

(LL) Unit operating hour or hour of unit operation—Any hour or fraction of an hour during which a unit combusts fuel.

(MM) Utilization—The heat input (expressed as million British thermal units per hour) for a unit.

(3) General Provisions.

(A) NO_x Emissions Limitations. Beginning May 1, 2004, the following NO_x emission rates shall apply:

1. EGUs located in the counties of Bollinger, Butler, Cape Girardeau, Carter, Clark, Crawford, Dent, Dunklin, Gasconade, Iron, Lewis, Lincoln, Madison, Marion, Mississippi, Montgomery, New Madrid, Oregon, Pemiscot, Perry, Phelps, Pike, Ralls, Reynolds, Ripley, St. Charles, St. Francois, Ste. Genevieve, Scott, Shannon, Stoddard, Warren, Washington and Wayne, shall limit emissions of NO_x to the more stringent of a rate of 0.25 lbs NO_x/million British thermal units per hour (mmBtu) of heat input during the control period or any applicable permitted NO_x limitation under 10 CSR 10-6.060.

2. EGUs located in the City of St. Louis and the counties of Franklin, Jefferson and St. Louis shall limit emissions of NO_x to the more stringent rate of 0.18 lbs NO_x/mmBtu of heat input during the control period, or any applicable permitted NO_x limitation under 10 CSR 10-6.060. For the purpose of calculating ERCs under subparagraph (3)(B)5.C. of this rule, the regulated NO_x emission rate (NO_xER_r) for units located in these areas shall be 0.25 lbs NO_x/mmBtu.

3. EGUs located in the counties of Buchanan, Jackson, Jasper, or Randolph shall limit emissions of NO_x to the more stringent rate of any applicable permitted NO_x limitation under 10 CSR 10-6.060 or the less stringent of:

A. 0.35 lbs NO_x/mmBtu of heat input during the control period; or

B. 0.68 lbs NO_x/mmBtu of heat input during the control period, provided that the unit is a cyclone EGU and burns tire-derived fuel in a quantity of at least one hundred thousand (100,000) PTEs per year. For installations with multiple cyclone EGUs, compliance with the one hundred thousand (100,000) PTE burned per year may also be based on the average number of PTEs burned per cyclone EGU.

4. EGUs located in any county not identified in paragraph (3)(A)1., (3)(A)2., or (3)(A)3. of this rule shall limit emissions of NO_x to the more stringent of a rate of 0.35 lbs NO_x/mmBtu of heat input during the control period or any applicable permitted NO_x limitation under 10 CSR 10-6.060.

5. In lieu of complying with the applicable emission limitations in paragraph (3)(A)1. through (3)(A)4. of this rule, any affected unit may comply through the NO_x emissions trading program under subsection (3)(B) of this rule.

(B) NO_x Emissions Trading Program.

1. NO_x authorized account representative. The NO_x authorized account representative shall have the responsibilities and meet the requirements identified in this subsection.

A. Each affected unit shall have only one NO_x authorized account representative with respect to all matters under the NO_x trading program. Each affected unit may have only one (1) alternate NO_x authorized account representative who may act on behalf of the NO_x authorized account representative.

B. A NO_x authorized account representative may be responsible for multiple units at an installation or within a system of installations with the same owner.

C. The department will act on a valid submission made on behalf of owners or operators of an affected unit only if the submission has been made, signed and certified by the NO_x authorized account representative or the alternate NO_x authorized account representative.

D. Each unit must submit an account certificate of representation no later than January 1, 2004 or December 31 of the year in which the rule becomes applicable for units installed after January 1, 2004.

2. NO_x allowance tracking system.

A. NO_x allowance tracking system accounts. The department will establish one (1) compliance account for each NO_x unit and one (1) overdraft account for each NO_x authorized account representative with one (1) or more NO_x units. Allocations of NO_x allowances pursuant to paragraphs (3)(B)3. or (3)(B)10. of this rule and deductions or transfers of NO_x allowances pursuant to paragraphs (3)(B)3., (3)(B)7., (3)(B)9., or (3)(B)10. of this rule will be recorded in the compliance accounts or overdraft accounts.

B. Establishment of accounts.

(I) Compliance accounts and overdraft accounts. Upon receipt of a complete account certificate of representation, the department will establish—

(a) A compliance account for each affected NO_x unit for which the account certificate of representation was submitted; and

(b) An overdraft account for each NO_x authorized account representative for which the account certificate of representation was submitted.

(II) Account identification. The department will assign a unique identifying number to each compliance account and each overdraft account.

C. Recording of NO_x allowance allocations.

(I) The department will record the NO_x allowances for the 2004 control period in the NO_x units' compliance accounts.

(II) Serial numbers for allocated NO_x allowances. The department will assign each NO_x allowance a unique identification number that will include digits identifying the year for which the NO_x allowance is allocated.

3. NO_x allowances.

A. Projected NO_x allowances.

(I) By March 1, 2004, the NO_x authorized account representative for each affected unit shall submit to the department a report containing the following:

(a) The projected control period NO_x emission rate for each affected unit;

(b) The average of the three (3) most recent control period heat inputs, unless those three (3) periods are not representative of normal operation; and

(c) A plan identifying the methodology for compliance with subsection (3)(A) of this rule.

(II) The department will review each report and make any amendments within fifteen (15) working days.

(III) The department will develop a summary of projected NO_x allowances on a unit by unit and statewide basis for distribution on or before May 1 of each year using Equation 1 of this rule.

Equation 1:

$$\frac{HI_p \times ER_p}{2000} = NO_xAL_p$$

where:

HI_p = the projected control period heat input for each NO_x unit;

ER_p = the projected control period emission rate for each NO_x unit; and

NO_xAL_p = the projected NO_x allowance for each NO_x unit rounded down to the nearest ton (in tons).

B. Control period NO_x allowances.

(I) By October 31 following each control period, each NO_x authorized account representative shall submit to the department the actual total control period heat input and actual average emission rate in a compliance report consistent with requirements of section (4) of this rule for each affected NO_x unit.

(II) By November 15 following each control period, the department will issue a notice to each NO_x authorized account representative of the actual NO_x allowances recorded in the unit compliance account for each affected NO_x unit using Equation 2 of this rule.

Equation 2:

$$\frac{HI_a \times ER_r}{2000} = NO_xAL_a$$

where:

HI_a = the actual control period heat input for each NO_x unit;

ER_r = the allowable control period emission rate for each NO_x unit as determined in paragraphs (3)(A)1. through (3)(A)4. of this rule; and

NO_xAL_a = the actual NO_x allowance for each unit for the control period rounded down to the nearest ton (in tons).

4. Compliance. By the end of the NO_x allowance transfer deadline, each NO_x unit shall have sufficient NO_x allowances in their compliance account to allow for the deductions in subparagraph (3)(B)4.B. of this rule.

A. NO_x allowance transfer deadline. The NO_x allowances are available to be deducted for compliance with a unit's NO_x emissions limitation for a control period in a given year only if the NO_x allowances—

(I) Were allocated for a control period in a prior year or the same year; and

(II) Are held in the unit's compliance account or the unit's overdraft account as of the NO_x allowance transfer deadline for that control period.

B. Deductions for compliance.

(I) The director will deduct NO_x allowances to cover the unit's NO_x emissions for the control period—

(a) From the compliance account; and

(b) Only if no more NO_x allowances available under subparagraph (3)(B)4.A. of this rule remain in the compliance account, from the overdraft account. In deducting allowances for units from the overdraft account, the director will begin with the unit having the compliance account with the lowest NO_x Allowance Tracking System account number and end with the unit having the compliance account with the highest NO_x Allowance Tracking System account number.

(II) The director will deduct NO_x allowances until the number of NO_x allowances deducted for the control period equals the number of tons of NO_x emissions, determined in accordance with part (3)(B)4.B.(III) of this rule, from the unit for the control period for which compliance is being determined; or until no more NO_x allowances available under subparagraph (3)(B)4.A. of this rule remain in the respective account.

(III) For a NO_x unit that is allocated NO_x allowances under part (3)(B)3.B.(II) of this rule for a control period, the department will deduct NO_x allowances under subparagraph (3)(B)4.B. or (3)(B)4.E. of this rule to account for the actual utilization of the unit during the control period. The department will calculate the number of NO_x allowances to be deducted to account for the unit's actual utilization using Equation 3 of this rule.

Equation 3:

$$\Sigma HI_a \times ER_a = NO_xAL_d$$

where:

HI_a = the actual control period heat input for each NO_x unit;

ER_a = the actual control period emission rate for each NO_x unit; and

NO_xAL_d = the number of NO_x allowances that will be deducted from each NO_x unit's compliance account (rounded down to the nearest allowance).

C. Identification of NO_x allowances by serial number.

(I) The NO_x authorized account representative may identify by serial number the NO_x allowances to be deducted from the unit's compliance account under subparagraph (3)(B)4.B., (3)(B)4.D., or (3)(B)4.E. of this rule. Such identification will be made in the compliance certification report submitted in accordance with paragraph (4)(A)1. of this rule.

(II) The staff director will deduct NO_x allowances for a control period from the compliance account, in the absence of an identification or in the case of a partial identification of NO_x allowances by serial number under part (3)(B)4.C.(I) of this rule, or the overdraft account in the following order:

(a) Those NO_x allowances that were allocated for the control period to the unit under part (3)(B)3.B.(II) of this rule;

(b) Those NO_x allowances that were allocated for the control period to any unit and transferred and recorded in the account pursuant to paragraphs (3)(B)7. and (3)(B)8. of this rule, in order of their date of recording;

(c) Those NO_x allowances that were allocated for a prior control period to the unit under part (3)(B)3.B.(II) of this rule; and

(d) Those NO_x allowances that were allocated for a prior control period to any unit and transferred and recorded in the account pursuant to paragraphs (3)(B)7. and (3)(B)8. of this rule, in order of their date of recording.

D. Deductions for units sharing a common stack. In the case of units sharing a common stack and having emissions that are not separately monitored or apportioned in accordance with section (4) of this rule—

(I) The NO_x authorized account representative of the units shall identify the percentage of NO_x allowances to be deducted from each such unit's compliance account to cover the unit's share of NO_x emissions from the common stack for a control period. Such

identification shall be made in the compliance certification report submitted in accordance with paragraph (4)(A)1. of this rule.

(II) Notwithstanding part (3)(B)4.B.(II) of this rule, the director will deduct NO_x allowances for each unit until the number of NO_x allowances deducted equals the unit's identified percentage (under part (3)(B)4.D.(I) of this rule) of the number of tons of NO_x emissions, as determined in accordance with section (4) of this rule, from the common stack for the control period for which compliance is being determined or, if no percentage is identified, an equal percentage for each unit, plus the number of allowances required for deduction to account for actual utilization under subparagraph (4)(A)1.G. of this rule for the control period.

E. The director will record in the appropriate compliance account or overdraft account all deductions from such an account pursuant to subparagraphs (3)(B)4.B. and (3)(B)4.D. of this rule.

5. Banking.

A. NO_x allowances may be banked for future use or transfer into a compliance account or an overdraft account, as follows:

(I) Any NO_x allowance that is held in a compliance account or an overdraft account, will remain in such account until the NO_x allowance is deducted or transferred under paragraphs (3)(B)4., (3)(B)5., (3)(B)6., or (3)(B)7. of this rule.

(II) The director will designate, as a banked NO_x allowance, any NO_x allowance that remains in a compliance account or an overdraft account after the director has made all deductions for a given control period from the compliance account or overdraft account pursuant to paragraph (3)(B)4. of this rule.

B. Each year, starting in 2005, after the director has completed the designation of banked NO_x allowances under part (3)(B)5.A.(II) of this rule and before May 1 of the year, the department will determine the extent to which banked NO_x allowances may be used for compliance in the control period for the current year, as follows:

(I) The director will determine the total number of banked NO_x allowances held in compliance accounts or overdraft accounts.

(II) If the total number of banked NO_x allowances determined, under part (3)(B)5.B.(I) of this rule, to be held in compliance accounts or overdraft accounts is less than or equal to ten percent (10%) of the sum of the NO_x trading program allocations for the previous control period, any banked NO_x allowance may be deducted for compliance in accordance with paragraph (3)(B)4. of this rule.

(III) If the total number of banked NO_x allowances determined, under part (3)(B)5.B.(I) of this rule, and held in compliance accounts or overdraft accounts exceeds ten percent (10%) of the sum of the state trading program allocations for the previous control period, any banked allowance may be deducted for compliance in accordance with paragraph (3)(B)4. of this rule, except as follows:

(a) The director will determine the adjustment factor using Equation 4 of this rule.

Equation 4:

$$AF = \frac{0.1 \times \sum NO_x AL_a}{\sum NO_x AL_b}$$

where:

AF = the adjustment factor;

$\sum NO_x AL_a$ = the sum of the statewide NO_x allowance allocated for the previous control period; and

$\sum NO_x AL_b$ = the sum of the banked NO_x allowances as determined under part (3)(B)5.B.(I) of this rule on January 1 of the current year;

(b) The director will determine the number of banked NO_x allowances in the account that may be deducted for compliance in accordance with paragraph (3)(B)4. of this rule using Equation 5 of this rule. Any banked NO_x allowances in excess of the product of Equation 5 may be deducted for compliance in accordance with paragraph (3)(B)4. of this rule, except that, if such NO_x allowances are used to make a deduction, two (2) such NO_x allowances must be deducted for each deduction of one (1) NO_x allowance required under paragraph (3)(B)4. of this rule.

Equation 5:

$$AF \times NO_x AL_b$$

where

AF = the adjustment factor calculated in Equation 4; and

$NO_x AL_b$ = the number of NO_x allowances in a NO_x unit's account;

(IV) Geographic flow control.

(a) Banked NO_x allowances made available for use in parts (3)(B)5.B.(II) and (3)(B)5.B.(III) of this rule may be traded on a one to one (1:1) basis unless otherwise specified in subparts (3)(B)5.B.(IV)(b) and (3)(B)5.B.(IV)(c) of this rule.

(b) Banked NO_x allowances made available for use in parts (3)(B)5.B.(II) and (3)(B)5.B.(III) of this rule may be traded from the control region for which paragraphs (3)(A)3. and (3)(A)4. of this rule are applicable to the control region for which paragraph (3)(A)1. of this rule is applicable on a one and one-half to one (1.5:1) basis.

(c) Banked NO_x allowances made available for use in part (3)(B)5.B.(II) and (3)(B)5.B.(III) of this rule may be traded from the control region for which paragraphs (3)(A)1., (3)(A)3. and (3)(A)4. of this rule are applicable to the control region for which paragraph (3)(A)2. of this rule is applicable on a one and one-half to one (1.5:1) basis.

C. Early reductions. For any affected NO_x unit that reduces its NO_x emission rate in the 2000, 2001, 2002 or 2003 control period, the owner or operator of the unit may request early reduction credits, and the department will allocate ERCs by January 31 of each year to the unit in accordance with the following requirements.

(I) Each NO_x unit for which the owner or operator requests any ERCs under part (3)(B)5.C.(IV) of this rule shall monitor NO_x emissions in accordance with section (4) of this rule for each control period for which such ERCs are requested. The unit's monitoring system availability shall be not less than ninety percent (90%) during the control period, and the unit must not have been found to be in violation of any applicable state or federal emissions or emissions-related requirements.

(II) NO_x emission rate and heat input under parts (3)(B)5.C.(III) through (3)(B)5.C.(V) of this rule shall be determined in accordance with section (4) of this rule.

(III) Each NO_x unit for which the owner or operator requests any ERCs under part (3)(B)5.C.(IV) of this rule shall reduce its NO_x emission rate, for each control period for which ERCs are requested, to less than the applicable requirement of subsection (3)(A) of this rule.

(IV) The NO_x authorized account representative of a NO_x unit that meets the requirements of parts (3)(B)5.C.(I) and (3)(B)5.C.(III) of this rule may submit to the department a request for ERCs for the unit based on NO_x emission rate reductions made by the unit in the control period for 2000, 2001, 2002 or 2003 in accordance with part (3)(B)5.C.(III) of this rule.

(a) In the ERC request, the NO_x authorized account representative may request ERCs for such control period using Equation 6 of this rule.

Equation 6:

$$ERC = HI_a \times (NO_xER_r - NO_xER_a) \div 2000$$

where:

ERC = the ERCs accrued rounded down to the nearest ton of NO_x;

HI_a = the actual control period heat input for each NO_x unit;

NO_xER_r = the regulated NO_x emission rate as identified in paragraphs (3)(A)1. through (3)(A)4. of this rule; and

NO_xER_a = the actual control period emission rate for each NO_x unit.

(b) The ERC request must be submitted, in a format specified by the department, by October 31 of the year in which the NO_x emission rate reductions are made.

(V) The department will allocate NO_x allowances no later than January 31 to NO_x units meeting the requirements of parts (3)(B)5.C.(I) and (3)(B)5.C.(III) of this rule and covered by early reduction requests meeting the requirements of subpart (3)(B)5.C.(IV)(b) of this rule.

(VI) NO_x allowances recorded under part (3)(B)5.C.(V) of this rule may be deducted for compliance under paragraph (3)(B)3. of this rule for the control periods in 2004 or 2005. Notwithstanding subparagraph (3)(B)5.A. of this rule, the director will deduct as retired any NO_x allowance that is recorded under part (3)(B)5.C.(V) of this rule and is not deducted for compliance in accordance with paragraph (3)(B)3. of this rule for the control period in 2004 or 2005.

(VII) NO_x allowances recorded under part (3)(B)5.C.(V) of this rule are not treated as banked allowances in 2005 for the purposes of subparagraphs (3)(B)5.A. and (3)(B)5.B. of this rule.

(VIII) Compliance set-aside account.

(a) The department will establish a compliance set-aside account, which will contain fifty percent (50%) of the ERCs, rounded down to the nearest ton, that are issued in accordance with part (3)(B)5.C.(II) of this rule.

(b) Fifty percent (50%) of the ERCs, rounded down to the nearest ton, in the compliance set-aside account will be sold to the NO_x authorized account representatives that apply for the ERCs and can demonstrate that the ERCs will be used for compliance by a unit that is in a research, development or trial stage for new air pollution control technology. If less than fifty percent (50%) of the ERCs are needed for these units, the remainder will be sold in accordance with subpart (3)(B)5.C.(VIII)(c) of this rule.

(c) The remaining ERCs in the compliance set-aside account will be sold in the order of request.

(d) NO_x authorized account representatives must request all of the ERCs needed from the compliance set-aside account for the 2004 and 2005 control periods by February 28, 2004. The request for ERCs shall include the following information:

I. The owner and operator;

II. The NO_x authorized account representative;

III. The NO_x unit identification number and name;

IV. The number of ERCs being requested; and

V. The overdraft or compliance account number.

(e) The department shall set the market rate for ERCs by February 1, 2004. Market rate shall not be set at a value below five hundred dollars ($500) per ERC nor in excess of one thousand dollars ($1,000) per ERC, and shall be established based on the following in the order listed:

I. The average rate of exchange of NO_x credits and ERCs in the Missouri NO_x Emissions Trading Program; and

II. The most recent control cost data available.

(f) The department shall notify the successful purchasers of ERCs by April 1, 2004 and payment shall be made by the purchaser to the sellers by April 15, 2004 for ERCs purchased. Once payment has been received by the sellers, they shall notify the department and the appropriate ERCs shall be transferred to the appropriate account by May 1, 2004.

(g) The ERCs will be sold from the compliance set-aside account on a percentage basis. Each purchaser will purchase a portion of each seller's ERCs.

(h) Once the appropriate ERCs are transferred to the purchaser's account, the ERCs are non-transferrable.

(i) Any ERC allowances remaining in the compliance set-aside account after May 1, 2004, will be returned to the unit that generated the ERCs by May 15, 2004.

(IX) All ERCs will be retired on January 31, 2006.

6. Account error. The director may correct any error in any NO_x Allowance Tracking System account. Within ten (10) business days of making such correction, the director will notify the NO_x authorized account representative for the account. The NO_x authorized account representative will then have ten (10) business days to appeal the correction if they feel the correction was made in error.

7. NO_x allowance transfers. The NO_x authorized account representatives seeking the recording of a NO_x allowance transfer shall submit the transfer request to the director. To be considered correctly submitted, the NO_x allowance transfer shall include the following elements in a format specified by the director:

A. The numbers identifying both the transferor and transferee accounts;

B. A specification by serial number of each NO_x allowance to be transferred; and

C. The printed name and signature of the NO_x authorized account representative of the transferor account and the date signed.

8. Department recording.

A. Within five (5) business days of receiving a NO_x allowance transfer, except as provided in subparagraph (3)(B)9.B. of this rule, the department will record a NO_x allowance transfer by moving each NO_x allowance from the transferor account to the transferee account as specified by the request, provided that—

(I) The transfer is correctly submitted under paragraph (3)(B)8. of this rule;

(II) The transferor account includes each NO_x allowance identified by serial number in the transfer; and

(III) The transfer meets all other requirements of this paragraph.

B. A NO_x allowance transfer that is submitted for recording following the NO_x allowance transfer deadline and that includes any NO_x allowances allocated for a control period prior to or the same as the control period to which the NO_x allowance transfer deadline applies will not be recorded until after completion of the process of recording of NO_x allowance allocations of this rule.

C. Where a NO_x allowance transfer submitted for recording fails to meet the requirements of subparagraph (3)(B)7. of this rule, the department will not record such transfer.

9. Notification.

A. Notification of recording. Within five (5) business days of recording of a NO_x allowance transfer under paragraph (3)(B)8. of this rule, the department will notify each NO_x authorized account representative of the transfer in writing.

B. Notification of nonrecording. Within ten (10) business days of receipt of a NO_x allowance transfer that fails to meet the requirements of paragraph (3)(B)7. of this rule, the department will notify in writing the NO_x authorized account representatives of both accounts subject to the transfer of—

(I) A decision not to record the transfer; and

(II) The reasons for such nonrecording.

10. Individual EGU opt-ins. An EGU that is not an affected unit under subsection (1)(A) of this rule that vents all of its emissions to a stack may qualify to become a NO_x opt-in unit under this paragraph of this rule. A NO_x opt-in unit will not be allowed to participate in the NO_x trading program without prior approval.

A. A NO_x opt-in unit shall have a NO_x authorized account representative.

B. Request for initial NO_x opt-in. In order to request to opt-in to the trading program, the NO_x authorized account representative of the unit must submit to the department at any time the following:

(I) The projected NO_x emission rate for each affected unit;

(II) The average of the three (3) most recent years heat input on a monthly basis over the control period for each affected unit; and

(III) A plan detailing the methodology for compliance with paragraph (3)(B)10. of this rule.

C. The department will review the request and respond within ninety (90) days of the date of receipt of the request.

D. Request for opting-in to the NO_x trading program must be received by the department no later than February 1 of the same year as the control period that the NO_x opt-in unit requests to begin participation in the NO_x trading program.

E. The NO_x opt-in units shall establish a baseline heat input and a baseline NO_x emissions rate under the requirements of subsection (5)(G) of this rule. After calculating the baseline heat input and the baseline NO_x emissions rate for the NO_x opt-in unit, the department will notify the NO_x authorized account representative of the unit of the resulting baseline.

F. The established baseline shall be the regulated NO_x emission rate for the opt-in unit. The NO_x opt-in unit shall meet the same schedule as all NO_x units with respect to all deadlines and schedules. The allowances issued to the opt-in unit under this paragraph shall be calculated using Equation 7 of this rule.

Equation 7:

$$\frac{HI_{opt} \times ER_{opt}}{2000} = NO_xAL_{opt}$$

where:

HI_{opt} = the actual control period heat input for the NO_x opt-in unit;

ER_{opt} = the baseline emission rate for the NO_x opt-in unit as determined under subsection (5)(F) of this rule; and

NO_xAL_{opt} = the actual NO_x allowances for the opt-in unit for the control period (in tons).

G. If at any time before the approval of a NO_x opt-in unit, the department determines that the unit does not qualify as a NO_x opt-in unit under this paragraph, the department will issue a denial of the NO_x opt-in request for the unit.

H. Withdrawal of NO_x opt-in request. A NO_x authorized account representative of a unit may withdraw its request to opt-in at any time prior to the approval for the NO_x opt-in unit. Once the request for a NO_x opt-in unit is withdrawn, a NO_x authorized account representative seeking to reapply must submit a new request for a NO_x opt-in unit under this subsection.

I. Effective date. The effective date of the initial NO_x opt-in shall be May 1 of the first control period starting after the approval of the NO_x opt-in unit by the department. The unit shall be a NO_x opt-in unit and an affected NO_x unit as of the effective date of the approval and be subject to the requirements of this rule.

J. Change in regulatory status. When a NO_x opt-in unit becomes an affected unit, the NO_x authorized account representative shall notify the department in writing of such change in the NO_x opt-in unit's regulatory status within thirty (30) days of such change.

K. Withdrawal from NO_x trading program. A NO_x opt-in unit may withdraw from the NO_x trading program if it meets the following requirements:

(I) To withdraw from the NO_x trading program, the NO_x authorized account representative of a NO_x opt-in unit shall submit to the department a request to withdraw effective as of a specified date prior to May 1 or after September 30. The submission shall be made no later than ninety (90) days prior to the requested effective date of withdrawal.

(II) Before a NO_x opt-in unit may withdraw from the NO_x trading program, the following conditions must be met.

(a) For the control period immediately before the withdrawal is to be effective, the NO_x authorized account representative must submit or must have submitted to the department an annual compliance certification report.

(b) If the NO_x opt-in unit has excess emissions for the control period immediately before the withdrawal is to be effective, the department will deduct from the NO_x opt-in unit's compliance account, or the overdraft account of the affected unit where the affected unit is located, the full amount required for the control period.

(III) A NO_x opt-in unit that withdraws from the NO_x trading program shall comply with all requirements under the NO_x trading program concerning all years for which such NO_x opt-in unit was a NO_x opt-in unit, even if such requirements must be complied with after the withdrawal takes effect.

(IV) Notification procedures shall be as follows:

(a) After the requirements for withdrawal under this paragraph have been met, the department will issue a notification to the NO_x authorized account representative of the NO_x opt-in unit of the acceptance of the withdrawal of the NO_x opt-in unit as of a specified effective date that is after such requirements have been met and that is prior to May 1 or after September 30.

(b) If the requirements for withdrawal under this paragraph have not been met, the department will issue a notification to the NO_x authorized account representative of the NO_x opt-in unit that the NO_x opt-in unit's request to withdraw is denied. If the NO_x opt-in unit's request to withdraw is denied, the NO_x opt-in unit shall remain subject to the requirements for a NO_x opt-in unit.

(V) A NO_x opt-in unit shall continue to be a NO_x opt-in unit until the effective date of the withdrawal.

(VI) Once a NO_x opt-in unit withdraws from the NO_x trading program, the

NO_x authorized account representative may not submit another application for the NO_x opt-in unit prior to the date that is four (4) years after the date on which the withdrawal became effective.

11. Output based emissions trading of NO_x. *(Reserved)*

(4) Reporting and Record Keeping.

(A) Reporting.

1. A compliance certification report for each affected unit subject to section (3) of this rule shall be submitted to the department by October 31 following each control period. The report shall include:

A. The owner and operator;

B. The NO_x authorized account representative;

C. NO_x unit name, compliance and overdraft account numbers;

D. NO_x emission rate limitation (lb/mmBtu);

E. Actual NO_x emission rate (lb/mmBtu) for the control period;

F. Actual heat input (mmBtu) for the control period. The unit's total heat input for the control period in each year will be determined in accordance with section (5) of this rule; and

G. Actual NO_x mass emissions (tons) for the control period.

2. Reporting shall be based on the test methods identified in section (5) of this rule. Any unit with valid continuous emission montoring system (CEMS) data for the control period must use that data to determine compliance with the provisions of this rule. The owner or operator for each affected unit which performs non-CEMS testing to demonstrate compliance of a unit subject to section (3) of this rule shall submit:

A. A control period report identifying monthly fuel usage and monthly total heat input by December 31 of the same year as the control period; and

B. A written report of all stack tests completed after controls are effective to the department within sixty (60) days after completion of sample and data collection.

(B) Record Keeping.

1. Each owner or operator of an affected unit subject to section (3) of this rule shall maintain records of the following:

A. Total fuel consumed during the control period;

B. The total heat input for each emissions unit during the control period;

C. Reports of all stack testing conducted to meet the requirements of this rule;

D. All other data collected by a CEMS necessary to convert the monitoring data to the units of the applicable emission limitation;

E. All performance evaluations conducted in the past year;

F. All monitoring device calibration checks;

G. All monitoring system, monitoring device and performance testing measurements;

H. Records of adjustments and maintenance performed on monitoring systems and devices; and

I. A log identifying each period during which the CEMS or alternate procedure was inoperative, except for zero and span checks, and the nature of the repairs and adjustments performed to make the system operative.

2. All records must be kept on-site for a period of five (5) years and made available to the department upon request.

3. Each owner or operator of any gas- or oil-fired unit that qualifies for the low-emitter exemption in paragraph (1)(B)1. of this rule or the low hours of operation exemption in paragraph (1)(B)2. of this rule, shall maintain records of the total operating hours during which fuel is consumed for each emission unit during the control period. In the event that another record keeping schedule has been previously approved for the EGU and is included as an operating permit condition, the EGU may use that schedule to comply with this requirement.

(5) Test Methods and Monitoring. For units subjects to this rule, the following requirements shall apply:

(A) Compliance shall be measured during the control period;

(B) All valid data shall be used for calculating NO_x emissions rates;

(C) Coal-Fired Units. Any coal-affected unit subject to this rule shall install, certify, operate, maintain, and quality assure a NO_x and diluent CEMS pursuant to the requirements in 40 CFR part 75;

(D) Non-Exempt Peaking Units. Any gas- or oil-fired peaking unit that is subject to the emission limitation or trading aspects of this rule shall:

1. Install, certify, operate, maintain, and quality assure a NO_x and diluent CEMS; or

2. Install, certify, operate, and quality assure fuel-metering equipment pursuant to 40 CFR part 75, Appendix D and shall establish a NO_x-to-load curve pursuant to 40 CFR part 75, Appendix E;

(E) Exempt Units.

1. The following hierarchy of methods may be used to determine if a unit qualifies for the low-emitter exemption in paragraph (1)(B)1. of this rule. If data is not available for an emission estimation method or an emission estimation method is impractical for a source, then the subsequent emission estimation method should be used in its place:

A. CEMS as specified in 10 CSR 10-6.110;

B. Stack tests as specified in 10 CSR 10-6.110;

C. Material/mass balance;

D. AP-42 (Environmental Protection Agency (EPA) Compilation of Emission Factors) or FIRE (Factor Information and Retrieval System) (as updated);

E. Other EPA documents as specified in 10 CSR 10-6.110;

F. Sound engineering calculations; or

G. Facilities shall obtain department pre-approval of emission estimation methods other than those listed in subparagraphs (5)(E)1.A. through (5)(E)1.F. of this rule before using such method to estimate emissions. In the event that such method has previously been approved for the EGU and included as an operating permit condition, the EGU may use that method to comply with this requirement.

2. Any gas- or oil-fired unit that qualifies for the low-emitter exemption in paragraph (1)(B)1. or the low hours of operation exemption in paragraph (1)(B)2. shall install and operate a non-resettable hour meter or determine the hours of operation for each emission unit during the control period. In the event that another monitoring method has previously been approved for the EGU and included as an operating permit condition, the EGU may use that method to comply with this requirement.

(F) Opt-In Units. Any unit that opts into the trading program, pursuant to paragraph (3)(B)10., shall be monitored consistent with the provisions of subsections (5)(D) and (5)(E) above. For the purpose of establishing the baseline allowance allocation, an opt-in unit shall install, certify, operate, maintain, and quality assure the monitoring device(s) and collect data for at least one (1) control season prior to submission of an opt-in application.

AUTHORITY: section 643.050, RSMo 2000. Original rule filed Feb. 15, 2000, effective Sept. 30, 2000. Amended: Filed Dec. 4, 2002, effective Aug. 30, 2003.*

**Original authority: 203.050, RSMo 1965, amended 1972, transferred to 643.050, RSMo 1986, amended 1992, 1993, 1995.*

10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes.

PURPOSE: This regulation restricts the emission of particulate matter in the source gas of an operation or activity except where 10 CSR 10-2.040, 10 CSR 10-3.060, 10 CSR 10-4.040, 10 CSR 10-5.030 and/or 10 CSR 10-6.070 would be applied.

(1) Applicability.

(A) This regulation applies to any operation, process or activity that emits particulate matter.

(B) The provisions of this rule shall not apply to the following:

1. Cotton gins;

2. The grinding, crushing and classifying operations at a rock quarry;

3. The receiving and shipping of whole grain from or into a railroad or truck transportation source at a grain elevator;

4. Smoke generating devices, as defined in subsection (2)(D) of this rule, when a required permit or a written determination that a permit is not required has been issued or written;

5. Batch-type charcoal kilns required to comply with 10 CSR 10-6.330;

6. The burning of fuel for indirect heating;

7. Fugitive emissions;

8. Emission sources that are exempt from construction permitting under 10 CSR 10-6.060 paragraphs (1)(D)1. and (1)(D)2.;

9. The burning of refuse;

10. The processing of salvageable material by burning;

11. Emission units that at maximum design capacity have a potential to emit less than one-half (0.5) pounds per hour of particulate matter; and

12. The grinding, crushing and conveying operations at a power plant.

(C) In the event that other rules in Title 10 *Code of State Regulations* are also applicable to particulate matter emission units, the more stringent requirement shall apply.

(2) Definitions.

(A) Process weight is defined as the total weight of all materials, including solid fuels, introduced into an emission unit, which may cause any emission of particulate matter, but excluding liquids and gases used solely as fuels and air introduced for purposes of combustion.

(B) Process weight rate is defined as a rate in tons per hour established as follows:

1. The rate of materials introduced to the process which may cause any emission of particulate matter;

2. For continuous or long-run steady-state emission units, the total process weight for the entire period of continuous operation or for a typical portion, divided by the number of hours of that period or portion;

3. For cyclical or batch emission units, the total process weight for a period of time which covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during that period; or

4. Where the nature of any process or operation or the design of any equipment permits more than one (1) interpretation of this section, that interpretation which results in the minimum value for allowable emission shall apply.

(C) For purposes of this regulation, a jobbing cupola is defined as a cupola which has a single melting cycle operated no more than ten (10) hours in any consecutive twenty-four (24) hours and no more than fifty (50) hours in any consecutive seven (7) days.

(D) A smoke generating device is defined as a specialized piece of equipment which is not an integral part of a commercial, industrial, or manufacturing process and whose sole purpose is the creation and dispersion of fine solid or liquid particles in a gaseous medium.

(E) Definitions of certain terms specified in this rule, other than those specified in this rule section, may be found in 10 CSR 10-6.020.

(3) General Provisions.

(A) Emission Limitations. All applicable sources, except grey iron jobbing cupolas and corn wet milling drying processes, shall meet the following requirements:

1. Except as provided for in paragraph (3)(A)2. and subsection (1)(B) of this rule, no person shall cause, suffer, allow or permit the emission of particulate matter in any one (1) hour from any source in excess of the amount calculated using one of the following equations selected based on the applicable process weight rate:

For process weight rates of 60,000 pounds per hour (lb/hr) or less:

$$E = 4.10P^{0.67}$$

and for process weight rates greater than 60,000 lb/hr:

$$E = 55.0P^{0.11} - 40;$$

where:

E = rate of emission in lb/hr; and

P = process weight rate in tons per hour (tons/hr); or

2. The limitations established by paragraph (3)(A)1. of this rule shall not require the reduction of particulate matter concentration, based on the source gas volume, below the concentration specified in paragraph (3)(A)2., Table I of this rule for that volume; provided that, for the purposes of this section, the person responsible for the emission may elect to substitute a volume determined according to the provisions of paragraph (3)(A)3. of this rule; and provided further that the burden of showing the source gas volume or other volume substituted, including all the factors which determine volume and the methods of determining and computing the volume shall be on the person seeking to comply with the provisions of this section.

Table I

Source Gas Volume (at Standard Cubic Foot Per Minute)	Concentration Grain Per Cubic Foot
7,000 or less	0.100
8,000	0.096
9,000	0.092
10,000	0.089
20,000	0.071
30,000	0.062
40,000	0.057
50,000	0.053
60,000	0.050
80,000	0.045
100,000	0.042
120,000	0.040
140,000	0.038
160,000	0.036
180,000	0.035
200,000	0.034
300,000	0.030
400,000	0.027
500,000	0.025
600,000	0.024
800,000	0.021
1,000,000 or more	0.020; or

3. Any volume of gases passing through and leaving an air pollution abatement operation may be substituted for the source gas volume of the emission unit served by the air pollution abatement operation, for the purposes of paragraph (3)(A)2. of this rule, provided that air pollution abatement operation emits no more than forty percent (40%) of the weight of particulate matter entering; and provided further that the substituted volume shall be corrected to standard conditions and to a moisture content no greater than that of any gas stream entering the air pollution

abatement operation and further provided that there is an enforceable requirement to operate the air pollution abatement equipment; and

4. Notwithstanding the provisions of paragraphs (3)(A)1. and (3)(A)2. of this rule, no person shall cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

(B) Grey iron jobbing cupolas shall meet the following requirements:

1. Cupolas shall be equipped with gas cleaning devices operated to remove not less than eighty-five percent (85%) by weight of all the particulate matter in the cupola discharge gases or release not more than 0.4 grain of particulate matter per standard cubic foot of discharge gas, whichever is more stringent.

2. All gases, vapors and gas entrained effluents shall be incinerated at a temperature not less than one thousand two hundred degrees Fahrenheit (1,200°F) for a period of not less than 0.3 seconds.

(C) All existing corn wet milling drying processes shall be equipped with gas cleaning devices and so operated as to remove not less than ninety-nine and one-half percent (99.5%) by weight of all particulate matter in the dryer discharge gases.

(4) Reporting and Record Keeping. All records of any tests performed to determine the amount of particulate matter emitted from a unit shall be kept on-site and available for inspection for five (5) years following the test date.

(5) Test Methods. The amount of particulate matter emitted shall be determined as specified in 10 CSR 10-6.030(5). Any other test method must be approved by the director.

AUTHORITY: section 643.050, RSMo Supp. 2000. Original rule filed Jan. 14, 2000, effective Aug. 30, 2000. Amended: Filed Dec. 22, 2000, effective Sept. 30, 2001.*

**Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995.*

10 CSR 10-6.410 Emissions Banking and Trading

PURPOSE: This rule provides a mechanism for companies to acquire offsets for economic development in accordance with section 643.220, RSMo. The evidence supporting the need for this proposed rulemaking, per section 536.016, RSMo, is section 643.220, RSMo.

PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. Therefore, the material which is so incorporated is on file with the agency who filed this rule, and with the Office of the Secretary of State. Any interested person may view this material at either agency's headquarters or the same will be made available at the Office of the Secretary of State at a cost not to exceed actual cost of copy reproduction. The entire text of the rule is printed here. This note refers only to the incorporated by reference material.

(1) Applicability.

(A) The generation of emission reduction credits (ERCs) in conjunction with this rule is available to installations that meet the following requirements:

1. Emit more than ten (10) tons per year for a criteria pollutant or its precursors as reported on their Emissions Inventory Questionnaire;

2. Have an operating permit as specified in 10 CSR 10-6.065 Operating Permits; and

3. Are located within any of the following areas:

A. An area that has been designated as a nonattainment area for a criteria pollutant;

B. A maintenance area for a criteria pollutant in which emissions offsets are required for new sources or modifications by the state implementation plan (SIP); or

C. A United States Environmental Protection Agency (U.S. EPA) approved attainment or maintenance demonstration or New Source Review (NSR) preconstruction permit modeling domain, unless it is a violation of federal law.

(B) The buying, selling or trading of ERCs in conjunction with this rule is available to all persons.

(C) The use of ERCs in conjunction with this rule is limited to the following:

1. Emissions offsets to satisfy New Source Review permitting requirements; or

2. For sources needing emission decreases from existing sources in their area of impact to mitigate air quality impacts from new sources or modifications under prevention of significant deterioration (PSD) requirements.

(2) Definitions.

(A) Account holder—Any person that chooses to participate in the program by generating, buying, selling or trading ERCs.

(B) Activity level—The amount of activity at a source measured in terms of production, use, raw materials input, vehicle miles traveled, or other similar units that have a direct correlation with the economic output of the source and is not affected by changes in the emissions rate (i.e., mass per unit of activity).

(C) Actual emissions—The actual rate of emissions of a pollutant from a source. Actual emissions as of a particular date shall equal the average rate, in mass per unit of time or mass per unit of activity, at which the unit actually emitted the pollutant during a two (2)-year period which precedes the particular date and which is representative of normal source operation at a particular time. A different time period may be used if that is more representative of normal source operation.

(D) Alternate authorized account representative—The alternate person who is authorized by the owners or operators of the unit to represent and legally bind each owner and operator in matters pertaining to the Emissions Banking and Trading Program in place of the authorized account representative.

(E) Authorized account representative—The person who is authorized by the owners or operators of the unit to represent and legally bind each owner and operator in matters pertaining to the Emissions Banking and Trading Program.

(F) Emission reduction credit (ERC)—A certified emission reduction that is created by eliminating future emissions and expressed in tons per year. One (1) ERC is equal to one (1) ton per year. An ERC must be real, properly quantified, permanent and surplus.

(G) Emissions unit—Any part of a source or activity at a source that emits or would have the potential to emit criteria pollutants or their precursors.

(H) Generating activity—Any process modification that results in a permanent reduction in emissions.

(I) Generator source—Any source that generates an ERC.

(J) Maintenance area—Any area with a maintenance plan approved under section 175 of the Act.

(K) Maintenance plan—A revision to the applicable Missouri State Implementation Plan (SIP), meeting the requirements of section 175A of the Act.

(L) Modeling domain—A geographic area covered by an air quality model.

(M) National Ambient Air Quality Standards (NAAQS)—The standards defined by 10 CSR 10-6.010 Ambient Air Quality Standards.

(N) New Source Review (NSR)—The permitting requirements found in state rule 10 CSR 10-6.060 Construction Permits Required.

(O) Normal source operation—The average actual activity rate of a source necessary for determining the actual emissions rate for the two (2) years prior to the date necessary for determining actual emissions, unless some other time period is more representative of the operation of the source or otherwise approved by the staff director.

(P) Protocol—A replicable and workable method to estimate the mass of emissions reductions, or the amount of ERCs needed for compliance.

(Q) Quantifiable—The quantity of emission reductions can be measured or estimated by accurate and replicable techniques. These techniques shall be at least as accurate and replicable as the techniques accepted by the U.S. EPA, where accepted techniques exist.

(R) Shutdown—Rendering an installation or unit inoperable by physically removing, dismantling or otherwise disabling the installation or unit so that it could not be reactivated without obtaining a new permit in accordance with 10 CSR 10-6.060.

(S) Stationary source—Any building, structure, facility or installation which emits or may emit any air pollutant subject to regulation under the Act. Building, structure, facility or installation includes all pollutant emitting activities that are located on one or more contiguous or adjacent properties, and are under the common control of the same person (or persons under common control).

(T) U.S. EPA—The United States Environmental Protection Agency.

(U) User source—Any source that seeks to use ERCs to comply with an applicable emission reduction requirement.

(V) Definitions of certain terms specified in this rule, other than those defined in this section, may be found in 10 CSR 10-6.020.

(3) General Provisions.

(A) General Rules for Generation and Use.

1. To become an account holder, a person must complete an account application, as specified in subsection (4)(A) of this rule, and be assigned a unique account identification number by the Missouri Department of Natural Resources' Air Pollution Control Program.

2. Each account holder must designate an authorized account representative and an alternate authorized account representative on the account application.

3. Except as provided under paragraph (3)(B)2. of this rule, any source may generate an ERC by reducing emissions, in the amount determined under paragraph (3)(B)1. ERC generators must ensure that ERCs are real, properly quantified, permanent and surplus.

4. There shall be no resulting adverse impact on air quality.

5. The director of the Missouri Department of Natural Resources' Air Pollution Control Program may not approve use of offsets where that use would interfere with the nonattainment control strategy contained in the Missouri State Implementation Plan.

6. Governmental approvals. No ERC can be transferred without prior notification of intent to transfer to the director of the Missouri Department of Natural Resources' Air Pollution Control Program. No ERC can be retired without prior notification of intent to use. ERCs that are used for NSR offsets shall have prior director approval.

7. Market participation. Any account holder may transfer, buy, sell, trade, or otherwise convey ERCs to another account holder in any manner in accordance with this rule.

8. Limited authorization to emit. An ERC created under this rule is a limited authorization to emit a criteria pollutant or its precursor in accordance with the provisions of this rule. An ERC does not constitute a property right. Nothing in this rule shall be construed to limit the authority of the Missouri Air Conservation Commission to terminate or limit such authorization.

9. Serial numbers. Each ERC will be assigned a unique identification number.

10. Shutdowns.

A. ERCs may be generated when a unit is shutdown or retired if the new replacement equipment is directly replacing the retired unit and the permit is applied for within one (1) year of the shutdown or retirement of the existing unit.

B. ERCs may be generated for entire installation shutdowns if the installation is located in an area where offsets are required by the state implementation plan and if the installation is defined as a major source for the pollutant or a precursor of the pollutant for which the area is classified. These ERCs shall be reduced by twenty-five percent (25%) and rounded to the nearest ton at the time of deposit into the generator's account.

C. In nonattainment areas lacking an approved attainment plan, banking of ERCs from shutdowns is subject to the provisions of 40 CFR 51.165(a)(3)(ii)(C), which is incorporated by reference.

11. Environmental contribution.

A. On December 31 of each year, the banked ERCs that were deposited in previous calendar years shall be reduced by three percent (3%).

B. The department shall deduct three percent (3%) of these ERCs from each account holders' banked ERCs. The remaining account balances shall be rounded down to the nearest ERC.

C. If the account holder wishes for specific serial numbered ERCs to be deducted for environmental contribution, a letter specifying the serial numbers must be received by the director of the Missouri Department of Natural Resources' Air Pollution Control Program by December 1 of each year.

D. On December 31 of each year, ERCs that have been reserved by an approved Notice of Intent to Use shall not be subject to the three percent (3%) environmental contribution.

E. In the event that ERCs are not taxed on December 31 due to being reserved and the ERCs are subsequently reinstated, a three percent (3%) environmental contribution shall be deducted at that time for each year that the ERCs were reserved and would have been subject to the environmental contribution.

12. ERCs shall be used on a first-in, first-out basis, unless specific serial numbers are included in the Notice of Intent to Use, Notice of Withdrawal, Notice of Intent to Transfer or at the time of environmental contribution as specified in subparagraph (3)(A)11.C. of this rule. If serial numbers are not specified, the oldest ERCs in an account shall be reserved and/or retired first.

13. The trading or use of ERCs in a modeling domain may be based on modeling performed on a concentration basis.

(B) ERC Generation.

1. Computation of ERCs.

A. The number of ERCs shall be the difference between—

(I) The amount of actual emissions that would have been emitted during the generation period based on actual activity levels during that period and normal source operation; and

(II) The amount of actual emissions during the generation period based on actual activity levels during that period.

B. Protocols. The amount of ERCs must be calculated using quantification protocols that meet the requirements of paragraph (3)(B)7. of this rule.

2. Limitations on generation. An ERC shall not be created by emissions reductions of activities or source categories identified in this subsection:

A. Permanent shutdowns or curtailments, unless it meets the requirements of paragraph (3)(A)10. of this rule;

B. Modification or discontinuation of any activity that is otherwise in violation of any federal, state or local requirements;

C. Emission reductions required to comply with any state, federal or local action including but not limited to:

(I) State, federal, or local consent agreements;

(II) Any provision of a state implementation plan; or

(III) Requirements for attainment of a National Ambient Air Quality Standard;

D. Emission reductions of hazardous air pollutants from application of a standard promulgated under section 112 of the Clean Air Act;

E. Reductions credited or used under any other emissions trading program;

F. Emission reductions occurring at a source which received an alternate emission limit to meet a state reasonably available control technology (RACT) requirement, except to the extent that the emissions are reduced below the level that would have been required had the alternate emission limit not been issued; or

G. Emission reductions previously used in determining net emission increases or used to create alternate emission limits.

3. Notice and Certification of Generation.

A. The owner or operator of a generator source shall provide a Notice and Certification of Generation to the Missouri Department of Natural Resources no later than ninety (90) days after the ERC generation activity was completed.

B. Required information. The Notice and Certification of Generation shall include the information specified in subsection (4)(B) of this rule.

C. The department shall review the Notice of Generation and notify the authorized account representative of approval or denial of the Notice of Generation within thirty (30) days of receipt of the notice.

D. The Notice and Certification of Generation shall be accompanied by an operating permit modification application.

E. Certification under penalty of law. Any Notice and Certification of Generation submitted pursuant to this subsection shall contain certification under penalty of law by a responsible official of the generator source of truth, accuracy and completeness. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

4. ERC use.

A. Time of acquisition. ERCs may not be used until they are acquired by the user source.

B. Sufficiency. The user source must hold sufficient ERCs to cover its offset obligation.

C. Offset calculation. The amount of ERCs needed to offset emissions shall be the anticipated actual emissions multiplied by the offset ratio.

D. Notice of Intent to Use ERCs.

(I) ERCs may be used only if the authorized account representative of the user source submits to the staff director of the Missouri Department of Natural Resources' Air Pollution Control Program a Notice of Intent to Use.

(II) Required information. The Notice of Intent to Use ERCs shall include the information specified in subsection (4)(C) of this rule.

(III) The department shall review the Notice of Intent to Use and notify the facility of approval or denial within thirty (30) days of receipt of the notice.

(IV) The Missouri Department of Natural Resources' Air Pollution Control Program shall reserve the specified ERCs when the permit application is deemed complete by the Initial Review Unit.

(V) Upon issuance of the construction permit, the appropriate number of reserved ERCs shall be permanently retired.

E. Notice of Withdrawal.

(I) An account holder may at any time withdraw ERCs from the program.

(II) Required information. The Notice of Withdrawal shall include the information specified in subsection (4)(D) of this rule.

(III) The department shall review the Notice of Withdrawal and notify the facility of approval or denial within thirty (30) days. Upon approval, the specified ERCs shall be removed from the facility's account.

F. Notice of Transfer.

(I) Account holders seeking an account transfer must submit a Notice of Transfer.

(II) Required information. The Notice of Transfer shall include the information specified in subsection (4)(E) of this rule.

(III) The department shall review the Notice of Transfer and notify the facilities of approval or denial within thirty (30) days. Upon approval, the specified ERCs shall be transferred to the specified account.

5. Use limitations. ERCs may not be used—

A. Before acquisition by the user of the ERCs;

B. For netting or to avoid the applicability of NSR requirements;

C. For NSR offsets unless the requirements of paragraph (3)(B)8. of this rule are met;

D. To meet Clean Air Act requirements for new source performance standards (NSPS) under section 111; lowest achievable emission rate (LAER) standards; best available control technology (BACT) standards; hazardous air pollutant (HAP) standards under section 112; reasonably available control technology (RACT);

E. To meet the requirements for one class of criteria pollutants or precursor by using ERCs generated in a different class of pollutants or precursors (e.g., NO_x reductions may not be exchanged for volatile organic compound (VOC) increases, or vice-versa); or

F. To meet requirements contained in Title IV of the Federal Clean Air Act.

6. Geographic scope of trading.

A. ERCs may be used in a nonattainment or maintenance area only if generated in the same nonattainment or maintenance area.

B. ERCs generated inside a modeling domain may be used in the same modeling domain. Trading of ERCs within a modeling domain is subject to the limitations of subparagraph (3)(B)6.A. of this rule.

C. Interstate trading. *(Reserved)*

7. Protocol development and approval. To quantify the amount of ERCs generated and the amount needed for compliance, all sources shall use the following hierarchy as a guide to determine the most desirable emission data to report to the department. If data is not available for an emission estimation method or an emission estimation method is impractical for a source, then the subsequent emission estimation method shall be used in its place:

A. Continuous Emission Monitoring System (CEMS) as specified in 10 CSR 10-6.110;

B. Stack tests as specified in 10 CSR 10-6.110;

C. Material/mass balance;

D. AP-42 (Environmental Protection Agency (EPA) Compilation of Air Pollution Emission Factors) or FIRE (Factor Information and Retrieval System);

E. Other U.S. EPA documents as specified in 10 CSR 10-6.110;

F. Sound engineering calculations;

G. Facilities shall obtain department approval of emission estimation methods other than those listed in subparagraphs (3)(B)7.A.–F. of this rule before using any

such method to estimate emissions in the submission of data.

8. ERC use for NSR. All ERCs used to meet NSR offset requirements shall comply with the requirements of state rule 10 CSR 10-6.060 Construction Permits Required.

9. Compliance burden.

A. The ERC user source is responsible for assuring that the generation and use of ERCs comply with this rule.

B. The ERC user source (not the enforcing authority) bears the burden of proving that ERCs used are valid and sufficient and that the ERC use meets all applicable requirements of this rule. The ERC user source is responsible for compliance with its underlying obligations. In the event of enforcement against the user source for noncompliance, it shall not be a defense for the purpose of determining civil liability that the user source relied in good faith upon the generator source's representations.

C. In the event of an invalid ERC, the generator source shall receive a Notice of Violation and the ERC user must find additional ERCs to comply with offset requirements.

10. Sources that emit less than ten (10) tons per year. *(Reserved)*

(C) Offsets. Offsets referred to in 10 CSR 10-6.060 subsection (7)(B) are subject to the following conditions:

1. Except for previously banked emission reduction credits, no offset credit may be taken for emission reductions occurring prior to the base year used to project attainment of the pollutant standard in the state implementation plan; and

2. No offset credit may be taken for emission reductions previously used in determining net emission increases or used to create alternate emission limits.

(D) Banking. Banking credit for emission reductions to use as offsets, at some future time, shall be allowed under the following circumstances:

1. The person requesting banking is the owner or operator of:

A. A new or modified installation who obtains a permit by applying offsets which exceed the requirements of 10 CSR 10-6.060; or

B. An existing installation in an area where offsets are required by the state implementation plan and that voluntarily reduces emissions of the pollutant or a precursor of the pollutant for which the area is classified after the base year used in the state implementation plan;

2. For source operations in the nonattainment areas for which reasonably available control technology (RACT) would be required, but as yet has not been defined, actual emission levels shall be reduced to represent post-RACT levels. The control technology assumed for these calculations shall be mutually agreed upon by the applicant and the director of the Missouri Department of Natural Resources' Air Pollution Control Program. Only emission reductions beyond the post-RACT emissions levels will be creditable;

3. Credit for emission reductions beyond those that were required by RACT or paragraph (3)(D)2. of this rule at a shutdown installation and that are in excess of those needed to offset a replacement installation can be banked;

4. It shall be a violation of this rule for any person to operate a source operation from which banked credit for emission reductions was obtained so as to emit the pollutant at levels greater than identified in the offset calculation referred to in subparagraph (3)(B)4.C. of this rule, unless the person who banked credit for the reductions, or their transferee, first files a notice with the director of the Missouri Department of Natural Resources' Air Pollution Control Program stating that credit for the reductions or a part of the credit is being withdrawn from the bank, and credit has not previously been withdrawn; and

5. The amount of banked emission reduction credits shall be discounted without compensation to the holder in the applicable source category when new rules requiring emission reductions are adopted by the commission. The amount of discounting of banked emission reduction credits shall be calculated on the same basis as the reductions required for existing sources which are subject to the new rule. A portion of banked credits, equivalent to the anticipated required reductions may be temporarily frozen by the director of the Missouri Department of Natural Resources' Air Pollution Control Program in anticipation of a new rule being adopted by the commission. This paragraph, however, shall not apply to emission reductions, discounted at the time of banking in accordance with paragraph (3)(D)2. of this rule, unless the new rule provides for the replacement of RACT with BACT or another more stringent level of control.

(4) Reporting and Record Keeping.

(A) The Account Application shall include the following information, submitted on a form supplied by the Missouri Department of Natural Resources:

1. The name and address of account holder;

2. Authorized account representative and alternate authorized account representative; and

3. County plant identification number (if applicable).

(B) The Notice and Certification of Generation shall include the following information, submitted on a form supplied by the Missouri Department of Natural Resources:

1. Account identification number;

2. Date generating activity was completed;

3. A brief description of the generation activity;

4. The amount of ERCs generated;

5. Affected emission units;

6. The protocols that were used to calculate and document the ERCs;

7. Information on all the generator source's applicable emission rates;

8. A statement that the reductions were calculated in accordance with paragraph (3)(B)1. of this rule;

9. A statement that the ERCs were not generated in whole or in part from actions prohibited pursuant to paragraph (3)(B)2. of this rule;

10. For each source subject to reporting toxic chemical releases for the Community Right-to-Know provisions under 40 CFR part 372, the estimated amount of hazardous air pollutants, as defined below, emitted to the air as the result of the generation of the ERC.

A. A pollutant shall be reported under this paragraph, only if it is listed both in 40 CFR 372.65 and section 112(b) of the Clean Air Act, and a chemical which the source is reporting or expects to report under 40 CFR part 372 for the calendar year in which the ERC was generated.

B. The requirements in 40 CFR 373.30(b) shall be followed for the notice.

C. The exemptions listed in 40 CFR 372.38 for determining the amount of release to be reported under 40 CFR 372.30 shall also be exemptions for determining the amount emitted under this subsection.

D. The notice shall include:

(I) The name and Chemical Abstracts Service (CAS) number (if applicable) of the chemical reported;

(II) If the chemical identity is claimed trade secret under 40 CFR 372, a generic name for the chemical as reported under 40 CFR 372.85(b)(11);

(III) A mixture component identity if the chemical identity is not known; and

(IV) An estimate of total air emissions, in pounds, for the relevant time period of ERC generation. Releases of less than one

thousand (1,000) pounds may be indicated in ranges.

11. Signature of authorized account representative and the signature of an official responsible for the truth, accuracy and completeness of the notice.

(C) The Notice of Intent to Use ERCs shall include the following information submitted on a form supplied by the Missouri Department of Natural Resources:

1. The name of the facility;

2. The emissions unit and the applicable pollutant;

3. Account identification number;

4. The date(s) on which the ERCs were acquired;

5. The amount of ERCs used and the associated serial numbers;

6. The applicable state and federal requirements that the ERCs were used to comply with;

7. The emissions quantification protocols that were used to calculate the amount of ERCs required to demonstrate compliance and documentation for the compliance calculation under paragraph (3)(B)7. of this rule;

8. A statement that due diligence was made to verify that the ERCs were not previously used and not generated as a result of actions prohibited under this regulation or other provisions of law;

9. A statement that the ERCs were not used in a manner prohibited under this regulation or other provisions of law;

10. For each source subject to reporting toxic chemical releases for the Community Right-to-Know provisions under 40 CFR part 372, the estimated amount of hazardous air pollutants emitted to the air as the result of the use of the ERC to meet otherwise applicable requirements. The estimated amount shall include emissions increases and any emission reductions used for ERCs instead of non-ERC compliance with otherwise applicable requirements. The same procedures shall be followed as the similar requirement under the Notice and Certification of Generation; and

11. Signature of authorized account representative and the signature of an official responsible for the truth, accuracy and completeness of the notice.

(D) The Notice of Withdrawal shall include the following information submitted on a form supplied by the Missouri Department of Natural Resources:

1. The name of the facility;

2. The emissions unit and the applicable pollutant;

3. Account identification number;

4. The serial numbers of the ERCs to be withdrawn;

5. The reason for the withdrawal;

6. A copy of the Notice and Certification of Generation submitted by the generator source to the state; and

7. Signature of authorized account representative and the signature of an official responsible for the truth, accuracy and completeness of the notice.

(E) The Notice of Transfer shall include the following information submitted on a form supplied by the Missouri Department of Natural Resources:

1. The name of the account holder that is trading the ERCs;

2. The name of the account holder that is receiving the ERCs;

3. Account identification number;

4. The amount of ERCs to be transferred and the associated serial numbers and applicable pollutants;

5. A statement that due diligence was made to verify that the ERCs were not previously used and not generated as a result of actions prohibited under this regulation or other provisions of law; and

6. Signature of authorized account representatives from both accounts signifying that both account holders agree to the requested transfer.

(F) The generator source shall document the protocol and specific data by which an ERC is quantified. Generator sources shall transfer all such documentation to any transferee at the time that ownership of an ERC is transferred. The user source shall document the protocol and specific data by which the amount of ERCs needed for compliance was determined. The user source shall maintain all relevant documentation for a minimum of five (5) years after an ERC is used for compliance. Records shall be kept with at least the same frequency as required for the underlying requirement.

(5) Test Methods. *(Not Applicable)*

AUTHORITY: section 643.050, RSMo 2000 and 643.220, RSMo Supp. 2002. Original rule filed Aug. 2, 2002, effective April 30, 2003.*

**Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995 and 643.220, RSMo 2001, amended 2002.*